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Evaluation of the New Deal for Disabled People: The cost and cost-benefit analyses

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Abbreviations

DWP	Department for Work and Pensions
IB	Incapacity Benefit
IS	Income Support
JSA	Jobseeker's Allowance
NDDP	New Deal for Disabled People
SDA	Severe Disablement Allowance

Summary

The New Deal for Disabled People (NDDP) is the major Government employment programme available to people claiming incapacity benefits. As such, it plays an important role in the Government's welfare to work strategy. The programme is delivered locally by Job Brokers, which are a mixture of voluntary, public and private sector organisations. Although Job Brokers vary enormously in size and in how they operate, most help clients with their job search, engage in job development, and attempt to increase clients' confidence in their ability to work. Many also attempt to develop clients' work-related skills and monitor clients' progress in jobs after they are placed, sometimes intervening when the client encounters problems on the job. Job Brokers receive a payment from the Department for each client they register, for each client they place in a job, and for each placed client who continues to work for at least six months.[1]

In 2001, a consortium, which is led by the Centre for Research in Social Policy (CRSP)[2], was commissioned by the Department for Work and Pensions to evaluate the programme. One key component of this evaluation is a cost-benefit analysis of NDDP. This analysis is intended to provide information on whether the monetary benefits from NDDP outweigh the programme's monetary costs from the point of view of society as a whole. The analysis is also aimed at determining whether NDDP improves the well being of those who registered with Job Brokers and the programme's net effect on the Government's budget. This information is critical in assessing whether NDDP is effective and whether the expenditures of resources on NDDP are worthwhile.

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1 The research reported here pertains to the time before the threshold for the definition of sustainable employment was reduced from 26 week to 13 weeks in October 2003.

2 Other members of the consortium include Abt Associates in Cambridge, Massachusetts; the Institute for Employment Studies; the National Centre for Social Research; the Social Policy Research Unit at the University of York; the University of Nottingham; and the Urban Institute in Washington, D.C.

To conduct a cost-benefit analysis it is first necessary to estimate programme effects (often called 'impacts') on the cash benefit payments and earnings that registrants receive and to estimate programme costs. An analysis of NDDP's impacts is reported elsewhere (see Orr, Bell and Lam 2007). These impact estimates have been adopted for use in the cost-benefit analysis. The NDDP cost analysis, as well as the NDDP cost-benefit analysis, is fully described in this report.

Cost analysis

Part II of this report examines the costs incurred by Job Brokers in the delivery of NDDP services. It also provides an estimate of the central administrative costs borne by the Government in operating NDDP. Estimates of the costs of NDDP were obtained from an analysis of the costs incurred by 19 Job Brokers in providing services to clients registered in the NDDP programme. The cost data were obtained through face-to-face interviews with Job Brokers in May and June 2003, just under a year after NDDP had been rolled out nationally. The Job Brokers were asked to provide data for the period between 1 April 2002 and 31 March 2003. Additional cost data were provided by the Job Brokers who were interviewed during follow-up telephone calls and by correspondence. Selected variables that were obtained from a postal survey of Job Brokers (MacDonald *et al.*, 2004) and from a survey of NDDP registrants (Ashworth *et al.*, 2004) were also used in the cost analysis presented in this report. In addition, based on financial records maintained by the Department for Work and Pensions (DWP), the report provides information on the costs incurred by Jobcentre Plus in administering NDDP.

Throughout this report, the costs estimates are reported as a range, rather than as a single estimate. This range reflects uncertainty about the actual cost incurred by two of the Job Brokers that provided cost data. The sources of this uncertainty are discussed in detail in Section 3.2.

Costs

The average cost to Job Brokers of delivering NDDP programme services to a typical registrant is between £600 and £900[3]. Less than three per cent of these expenditures are payments made by Job Brokers to other organisations; the remaining costs result from services they directly provide. The £600 to £900 cost estimate pertains only to costs that are borne by Job Brokers. However, Jobcentre Plus incurs costs of over £100 per registrant in administering NDDP. Thus, the total cost of operating NDDP is £700 to £1,100 for each registrant. These estimates do not include costs that result when Job Brokers refer clients to other organisations but do not pay for the services these organisations provide. On the other hand, and contrary to original intentions,

[3] Throughout this report, the costs estimates are reported as a range, rather than as a single estimate. This range reflects uncertainty about the actual cost incurred by two of the Job Brokers that provided cost data. The sources of this uncertainty are discussed in detail in *Section 3*.2.

cost data are not available for a control group. As a result, the cost estimates include some costs that would have occurred even in the absence of NDDP because some disabled people would have sought services provided by Job Brokers elsewhere if NDDP did not exist. However, these factors tend to be offsetting and, for reasons discussed in the reports, both are believed to be small.

Profitability

The profits (or losses) of Job Brokers were measured by subtracting the costs that they incurred from the incentive payments they received from the Department. Thirteen of the 19 Job Brokers in the sample suffered net losses, whilst six appear to have made profits. The average Job Broker incurred a loss of over £300 per registrant.[4] However, the larger Job Brokers tended to operate at a profit.

Cost-effectiveness

Including both costs incurred by Job Brokers and the central administrative costs incurred by Jobcentre Plus, the cost per placement under the NDDP programme is £2,000 to £3,000 and the cost per sustainment is £4,000 to £5,000 (where a 'sustainment' is defined as retaining a job for at least six months).

Size matters

There is great variation among Job Brokers in both costs and profitability. This variation is not surprising, as the Job Brokers differ considerably in the combination of services that they provide. Much of the variation in costs and profits is associated with differences among Job Brokers in size, that is, in the number of customers they have registered. Larger Job Brokers tend to have lower costs than smaller Job Brokers and to be more profitable. For example, costs per registrant for a typical Job Broker would fall by £2 to £4 as a result of a one per cent increase in the number of registrants at that Job Broker and profits would increase by around £4 or £5 per registrant as a result of the one per cent increase in number of registrants. Because the costs of smaller Job Brokers tend to be relatively high and the fraction of their registrants that they place in jobs tends to be relatively low, Job Broker size is also strongly inversely related to costs per placement and costs per sustainment.

The role of other factors

There is less certainty about the role of factors other than size on the costs and profitability of Job Brokers. However, there is some evidence that a Job Broker's cost per registrant increases as it increases its sustainment rate. The analysis also suggests that costs incurred by public and private sector Job Brokers are £300 to £400 higher

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[4] Some Job Brokers received outside funding, including funds from the European Social Fund. To the extent such external funding existed, Job Broker profits will be understated. Although such funds are likely to be small relative to the total cost Job Brokers incurred, their amount is unknown.

per registrant than they are for other Job Brokers, whilst the profits of Job Brokers that are in the public or private sectors appear to be around £500 lower per registrant than those of other Job Brokers. Neither the types of services that a Job Broker provides nor whether it had been previously involved in earlier initiatives with a similar client group seems to influence either its costs per registrant or its profitability.

Cost-benefit analysis

The cost-benefit analysis is presented in Part III of this report. It relies heavily on estimates from the NDDP impact analysis conducted by Orr, Bell and Lam (2007), as well as on the cost estimates. The estimates used in the cost-benefit analysis, which have all been converted to 2005 prices, pertain to a typical or average NDDP registrant. The analysis separately estimates NDDP's effects on: (1) the Government's budget; (2) the well-being of the disabled persons who register in it; and (3) society as a whole. The results are reported in terms of NDDP's **net** benefits (i.e. its benefits less its cost). Separate analyses are conducted from each of these vantage points for continuing claimants of incapacity benefits and new (or returning) claimants. In addition, separate cost-benefit analyses of larger Job Brokers (more than 900 registrants) and smaller Job Brokers (fewer than 900 registrants) are also conducted.

The Government's budget

Taking account of reductions in benefit payments received by NDDP registrants, reductions in the cost of administering benefits, and increases in tax payments, the analysis indicates that NDDP reduces the Government's budgetary requirements by over £2,500 for a typical continuing claimant who registered and by over £750 for an average new claimant who registered. In terms of the costs of NDDP, this is a considerable saving. For each pound expended on NDDP, the Government saved between £3.41 and £4.50 for continuing claimants and between £1.71 and £2.26 for new claimants in benefit payments and administrative expenditures. The conclusion that NDDP is cost-beneficial for both groups of customers from the Government's perspective appears to be highly robust to the assumptions that underlie it.

The benefits the Government received exceeded the Government's costs at both large and small Job Brokers. However, mainly because NDDP reduced the incapacity benefits received by an average claimant who registered at larger Job Brokers by a much greater amount than it reduced the benefits received by an average claimant who registered at smaller Job Brokers, larger Job Brokers were much more cost-beneficial from the Government's perspective, than the latter.

NDDP registrants' well-being

There is considerable uncertainty about the extent to which NDDP is cost-beneficial from the perspective of NDDP registrants, especially for continuing claimants. Much of this uncertainty results from shortcomings in the administrative data used to estimate the effects of NDDP on incapacity benefit amounts and employment and from programme benefits and costs that could not be estimated.

Our estimates suggest that the income of a typical NDDP registrant was probably increased by the programme, but not by a large amount. The Incomes of NDDP registrants would have been found to have increased somewhat more than our estimates suggest if, as is likely, NDDP increased the hours of work of employed registrants, as well as the proportion of registrants who were employed. However, to have much effect, the increase in hours would have to have been fairly large. Unfortunately, although there are estimates of NDDP's impact on employment, no information is available about NDDP's impact on the hours of work of those who are employed.

Whether NDDP improved the **well-being** of its registrants is not solely determined by its effects on their incomes. For example, those who go to work may face increased childcare and commuter costs and, in addition, in order to work will have to give up time during which they might do other things of value to themselves. On the other hand, their health and quality of life may improve. Unfortunately, information about all these factors is quite limited. Nonetheless, once the scant information that is available is taken into account, it seems likely that a typical NDDP registrant, regardless of whether they were a continuing claimant or a new claimant, benefited as a result of having participated in the programme but only to a modest degree.

NDDP had similar impacts on the earnings of claimants who registered at small and large Job Brokers, but because NDDP reduced the incapacity benefits received by an average registrant at smaller Job Brokers by more than it reduced the incapacity benefits received by an average registrant at larger Job Brokers, the former were better off under the programme than the latter. Overall, NDDP appears to be most cost-beneficial for continuing claimants who registered at small Job Brokers and least cost-beneficial for new claimants who registered at large Job Brokers.

Society's net benefits

The net benefits of NDDP to society as a whole are very likely positive and considerably larger for continuing claimants than for new claimants. Specifically, the reported estimates are £2,915 to £3,163 for typical continuing claimants and £613 to £861 for average new claimants or about £4 or £5 for each pound the Government expended on NDDP in serving continuing claimants and around £2 for each pound it expended on the new claimant group.

Actual net benefits received by society could be somewhat smaller or larger than the estimates just reported, however. On the one hand, they would be significantly smaller **if** NDDP registrants who find jobs due to the programme squeeze substantial numbers of non-registrants out of jobs they would have otherwise obtained, are large or **if** registrants highly value the time they must give up in order to go to work. On the other hand, they would be substantially larger **if** NDDP had large impacts on the hours worked by employed registrants, as well as on the level of employment of registrants; **if** increases in the employment of the disabled are highly valued by taxpayers; or **if**, by allowing taxes to be lower than otherwise, NDDP significantly reduces economic distortions that are caused by taxes. In addition, certain limitations

in the administrative data used to estimate NDDP's effect on earnings could have resulted in either over- or under-stating net social benefits. After assessing these effects, as well as a number of less important ones, it seems highly probable that the net social benefits of NDDP are positive.

Net social benefits do not seem to differ greatly by Job Broker size. The key factor that that caused net benefits to be bigger at larger Job Brokers from the Government's perspective and smaller from the perspective of registrants - the fact that NDDP reduced IS, IB and SDA benefit amounts by more for registrants at large than for registrants at small Job Brokers - has no influence on net social benefits. Reductions in incapacity benefit payments count as a benefit to Government, a cost to registrants, and are exactly offsetting when viewed from the vantage point of society as a whole.

Part I – Introduction

1 Introduction

The New Deal for Disabled People (NDDP) is the major employment programme available to people claiming incapacity benefits. As such, it plays an important role in the Government's welfare to work strategy. The programme is delivered locally by a network of contracted providers, referred to as Job Brokers. In 2001, a consortium, which is led by the Centre for Research in Social Policy (CRSP)[5], was commissioned by the Department for Work and Pensions (DWP) to evaluate the programme. One key component of this evaluation is a cost-benefit analysis of NDDP. This analysis is intended to provide information on whether the monetary benefits from NDDP are larger or smaller than the programme's monetary costs from the point of view of society as a whole. The cost-benefit analysis is also aimed at determining whether NDDP improves the well being of those who registered with Job Brokers and the programme's net effect on the Government's budget. This information is critical in assessing whether NDDP is effective.

To conduct a cost-benefit analysis it is first necessary to estimate programme effects (often called 'impacts') on the cash benefit payments and earnings that registrants receive and to estimate programme costs. An analysis of NDDP's impacts is reported elsewhere (Orr. Bell and Lam 2007). These impact estimates have been adopted for use in the cost-benefit analysis. The NDDP cost-analysis, as well as the NDDP cost-benefit analysis, is fully described in this report.

The report is divided into four parts: The remainder of this part of the report provides some additional background information on the NDDP programme and brief overviews of both the cost analysis and the cost-benefit analysis. Part II presents the cost analysis. This chapter describes in some detail how the cost data used in this report were obtained from Job Brokers and discusses some of the limitations of these data. Chapter 2 presents findings for the costs borne and profits received by Job Brokers. Chapter 3 examines the cost-effectiveness of the NDDP programme. Part III

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[5] Other members of the consortium include Abt Associates in Cambridge, Massachusetts; the Institute for Employment Studies; the National Centre for Social Research; the Social Policy Research Unit at the University of York; the University of Nottingham; and the Urban Institute in Washington, D.C.

of the report describes the data and methods used in the cost-benefit analysis and presents findings from the analysis. Part IV of the report summarises the analysis of Job Broker costs and findings from the cost-benefit analysis.

1.1 Policy background

NDDP is a voluntary programme designed to help people with disabilities and health conditions move from incapacity benefits into sustainable employment. It was introduced in 1998 by the then Department for Education and Employment and the then Department of Social Security, which piloted a range of initiatives for people claiming health-related benefits. In 2001 the programme was extended nationally for three years, and in July 2003 it was announced that it would be further extended for two years to March 2006. It was more recently announced that the programme would be additionally extended until March 2007. The lead department is now the DWP.

NDDP is available to persons claiming at least one of the following 'qualifying benefits':

- Incapacity Benefit;
- Severe Disablement Allowance;
- Income Support with a Disability Premium;
- Income Support pending the result of an appeal against disallowance from Incapacity Benefit;
- Housing Benefit or Council Tax Benefit with a Disability Premium (provided clients are not in paid work of 16 hours a week or more or receiving Jobseeker's Allowance);
- Disability Living Allowance (provided clients are not in paid work of 16 hours a week or more or receiving Jobseeker's Allowance);
- War Pension with an Unemployability Supplement;
- Industrial Injuries Disablement Benefit with an Unemployability Supplement;
- National Insurance credits on grounds of incapacity; and
- equivalent benefits to Incapacity Benefit being imported into Great Britain under European Community Regulations.

NDDP is delivered by a network of around 60 Job Broker organisations, which help people with disabilities and health conditions gain sustained employment. The Job Brokers receive payment for each client they register, for each client they place in a job, and for each placed client who continues to work for at least six months.[6] Except for the award for each registration, which is set at £104, the amounts of these incentive payments are negotiated with the DWP and thus vary among the Job Brokers.

Job Brokers are a mixture of voluntary, public and private sector organisations, and vary enormously in size and in how they operate. However, most help clients with their job search, engage in job development and attempt to increase client confidence in their ability to work. Many also attempt to develop client work skills and monitor client progress in jobs after they are placed, sometimes intervening when the client encounters problems on the job. On occasion, clients are channelled into outside organisations that provide services that are not available from their Job Broker. Most Job Brokers are parts of organisations that are engaged in a variety of activities in addition to NDDP. The relative importance of these other activities and NDDP varies greatly across the organisations.

A Job Broker can cover one or more local authorities, and some have more than one office. Because more than one broker can operate within a district, potential clients are usually offered a choice of Job Brokers; initially Jobcentre Plus advisers were required to be 'neutral' and not offer advice to customers about which local Job Broker would best meet their needs, but they can now do so. Most Job Brokers make outreach and marketing efforts to attract as many clients as possible. In addition, Jobcentre Plus offices provide an NDDP gateway in which new claimants of incapacity benefits are informed about the programme and local Job Brokers, as well as about other services.

1.2 The evaluation of NDDP national extension

As previously indicated a cost analysis and a cost-benefit analysis are just two of a number of components of the NDDP evaluation. Other elements of the evaluation include:

- A quantitative *Survey of Job Brokers* in which Job Brokers report on the services they deliver to clients, their perceptions of clients, the role of their partner organisations in service delivery, and their relationships with employers. The survey was also designed to establish whether individual Job Brokers were able to provide detailed information about the costs of delivering the programme.
- A quantitative *Survey of Registrants* to obtain information about clients' characteristics, and their experiences with, and views on, the programme.

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[6] The research reported here pertains to the period before the threshold for the definition of sustainable employment was reduced from 26 week to 13 weeks in October 2003.

- *Qualitative Research* to explore the organisation, operation and impacts of the Job Broker service from the perspective of key stakeholders, including in-depth interviews with: the eligible population, NDDP participants, Job Broker managerial and front-line staff, and Jobcentre Plus Personal Advisers and Disability Employment Advisers. This research has been complemented by five area case studies exploring the variation in Job Brokers' performance.
- A *Documentary Analysis* of the successful bids made by organisations wanting to become Job Brokers in 2001 in order to identify the key characteristics of these organisations and the services they proposed to deliver.
- *Qualitative Research with Employers* to assess employer awareness of, understanding of, and experiences with NDDP, and how these change over time.
- A quantitative *Survey of Employers* to obtain information on employers known to have recruited employees previously registered with NDDP.
- A *Survey of the Eligible Population* to obtain information about the characteristics and work aspirations of those eligible for the programme and their awareness of, attitude towards, and involvement with NDDP.
- An *Impact Analysis* to assess the net additionality of NDDP. This analysis was based upon statistical analyses of administrative data.

Findings from the other components of the evaluation are summarised in two synthesis reports (Stafford with others 2004 and 2006). A third and final synthesis report will be produced, which will incorporate the cost-benefit analysis reported here.

1.3 Objectives of the cost analysis

As described in Chapter 2, several of the evaluation components listed above, particularly the *Survey of Job Brokers* and the *Survey of Registrants*, contributed to the cost analysis. On the other hand, the cost analysis, along with the impact analysis, is essential to the cost-benefit analysis. Because of the needs of the cost-benefit analysis, one key objective of the cost analysis described in this report is to establish an estimate of the costs incurred by Job Brokers in delivering services to registrants of the NDDP programme. Although one readily obtainable measure of costs is the payments the Government makes to Job Brokers, these payments could be either larger or smaller than the expenses Job Brokers actually incur. As discussed later in the report, it is these expenses that are the appropriate measure of costs for use in a cost-benefit analysis, although the payments to Job Brokers are, of course, a correct measure of the cost to the Government.

As will be seen, however, individual Job Brokers vary enormously in the costs they generate in serving NDDP registrants. The Government's payments more than cover the costs borne by some Job Brokers, but others suffer losses as a result of participating in NDDP. Thus, we also examine why some Job Brokers incur smaller costs than others.

In addition, we analyse the cost-effectiveness of Job Brokers in delivering services to their clients - for example, the cost per job placement or the cost for each customer who remains employed for at least six months.

The cost data that are used in this report were collected from a sample of Job Brokers. Additional data were collected from the Department for Work and Pensions' financial record on the costs incurred by Jobcentre Plus in administering the NDDP programme.

Two factors that influence costs are not taken into account in the cost estimates. On the one hand, data were not available on costs that result when Job Brokers channel people with health conditions and disabilities to external organisations, except when the Job Brokers pay these outside organisations for providing services to their clients. On the other hand, some of the costs incurred by NDDP might have been borne elsewhere in the absence of the programme. In other words, some of the services provided by Job Brokers may substitute for services that would have been provided elsewhere if NDDP did not exist. Unfortunately, as discussed further in Chapter 2, we have no way of estimating these costs. Thus, the costs we report are not the costs that result from the existence of the NDDP; they are costs incurred in delivering NDDP programme services. These two factors tend to be offsetting and as discussed in Chapter 4, it appears likely that if they could be taken into account, little change would result in the estimates presented in the report.

1.4 Objectives of the cost-benefit analysis

As previously mentioned, the aim of the cost-benefit analysis is to determine whether the monetary benefits of NDDP outweigh the programme's monetary costs from a societal point of view and, hence, whether the programme is economically efficient. If it is not economically efficient, the analysis may suggest ways in which it can be made so. If it cannot be made economically efficient, then consideration should be given to terminating the programme. Additional, related objectives of the cost-benefit analysis are to assess whether the programme improves the well being of those who participate in NDDP, the registrants, and to determine what the net effect of the programme is on the Government's budget. The cost-benefit analysis from each of these three perspectives - the Government's, the registrant's and society's - is presented separately in Part III of the report. As discussed in Part III, because it is not possible to value some potential effects of NDDP in monetary terms (for example, those on health status and on the utilisation of the National Health Service), these effects are not formally integrated in the cost-benefit analysis, although their likely importance is assessed.

In a sense, the cost-benefit analysis of NDDP is usefully viewed as the end product of the programme's evaluation because it utilises many of the other components of the research that are listed above, especially the cost analysis and the impact analysis, and because it is done after work on the other components is completed. As indicated above, relevant findings from the cost analysis appear in Part II of this report while the required findings from the impact analysis are presented in Orr, Bell and Lam (2007).

Part II – The cost analysis

2 Cost analysis: data and methods

Summary

This section contains information on:

- how Job Brokers were sampled (Section 2.2);
- the data collection process (Section 2.3);
- the range and scope of the data assembled (Section 2.4);
- how Job Brokers' costs were calculated (Section 2.5); and
- limitations of the data (Section 2.6).

2.1 Introduction

This section describes the selection of the sample Job Brokers used in the cost analysis and explains in detail what data were collected, how the information was used to calculate costs, and what problems were encountered during the process. It also includes a discussion of the limitations of the Job Broker data.

2.2 Selecting the sample of Job Brokers

As will be seen, gathering the data for the cost analysis required field visits to each Job Broker that provided cost information. Data were collected from a stratified sample of 20 Job Brokers. To determine which Job Brokers to approach, information provided by the *Survey of Job Brokers* was used (MacDonald *et al.*, 2004).

The *Survey of Job Brokers* is a quantitative survey of all the NDDP Job Brokers included in the *Documentary Analysis*, as well as any additional providers that had joined the programme by the summer of 2002 when the survey was conducted. In addition to questions on process, staffing, service delivery, clients and employers, the Job Brokers were asked if they **would be able to** provide detailed financial information on staffing, overheads and other costs of delivering NDDP. However, they were not asked to provide this information in responding to the survey.

From a total of 95 questionnaires sent to 61 Job Brokers, 76 were returned from 51 different organisations.[7] Out of the organisations that responded, nine indicated they would be able to provide most of the financial information listed in the questionnaire and 12 said that they would be able to provide all of the financial data.

To construct a sample frame for collecting the cost data, Job Brokers were stratified in two ways. Firstly, organisations were categorised by number of registrants:

- under 75 registrations;
- 76-150 registrations;
- 151-300 registrations;
- 301-600 registrations, and
- 601+ registrations.

The Job Brokers were then further categorised according to their economic sector (i.e. public, private, voluntary and mixed/other).

It was thought that a sample size of 20 Job Brokers would capture variation in both of these dimensions, yet also be achievable given the resources available for the cost analysis. The sample was purposively selected. Four Job Brokers were selected for each size band; and seven Job Brokers were drawn from the public sector, seven from the voluntary sector, three from the private sector, and three from the mixed/other categories. In addition, an attempt was made to achieve geographic diversity. Whenever possible, the selected Job Brokers were from among those that had indicated that the financial data needed for the cost analysis would be available. To avoid over-burdening respondents, Job Brokers involved in the *Qualitative Research* were mostly excluded from the sample, although there was some unavoidable overlap. The resulting sample comprised Job Brokers in England, Scotland and Wales, with a mix of urban and rural client bases. Based on the number of registrations approved by the Department for the period, the Job Brokers in the sample accounted for just under a third (31.4 per cent) of all registrants. As there were 61 Job Brokers at the time of the survey, and 20 Job Brokers in the sample, it would seem representative in terms of number of registrants.

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[7] The reason there were more questionnaires than organisations is that some Job Brokers had multiple offices.

2.3 Recruitment and data collection

The 20 Job Brokers included in the sample were contacted individually by telephone and asked if they would be willing to provide cost data to the NDDP evaluation team. Because the requested financial data are proprietary, the contacted Job Brokers were promised that the information they provided would be kept strictly confidential. Thus, the findings in Chapter 3 are all presented in the form of statistics that are grouped over Job Brokers in the sample so that the costs of individual Job Brokers cannot be identified.

All 20 of the contacted Job Brokers agreed to provide cost information and face-to-face interviews were arranged. The purpose of the site visits was to obtain information from each Job Broker regarding their processes and types of services they delivered, as well as to collect the necessary financial data. This background information helped to put the cost data collected into context and ensure that important cost components were not overlooked.

In advance of the site visits, the Job Brokers were sent letters, **pro formas** and guidance notes indicating the type of data needed and the preferred format for reporting the information that the researchers would be collecting (MacDonald *et al.*, 2004). The fieldwork took place over four weeks in May and June 2003. Follow-up telephone calls and email correspondence were used to acquire information that was not obtained during the field visits and to clear up any inconsistencies in the data that were collected.

Although it was made clear to respondents that they were not expected to complete the pro formas in advance of the field visits, several did so, while others devised spreadsheets based on the pro forma that contained the relevant data. Other Job Brokers had not compiled the information in advance but had it to hand and were able to complete the pro forma during the meeting with the researchers. Several Job Brokers did not look at the information we requested, however, until the meeting itself. Problems encountered with these and a few other Job Brokers are discussed below.

2.4 Individual cost components

In order to determine the total costs to the Job Brokers of administering and delivering the programme, a range of data was required. Instrumentation was designed in order to facilitate data collection and to standardise the information collected as far as possible. For the sake of comparability, the Job Brokers were asked to provide data for the period 1 April 2002 to 31 March 2003 inclusive. April 2002 was nine months after NDDP had been rolled out nationally. By then, the programme had stabilised, following an early settling in period. Usable cost data were obtained from 19 of the 20 Job Brokers we visited.[8]

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[8] The Job Broker that did not provide usable data is discussed further below.

Job Brokers were asked to provide information on:

- staff costs (i.e., salaries, fringe benefits, national insurance and pension contributions);
- overhead costs (such as rent for facilities, telephones, heating, lighting, adverts, etc.);
- payments made to other organisations for services provided to NDDP clients (e.g., training); and
- any other costs incurred as a result of the programme.[9]

Each of these elements is discussed below.

2.4.1 Staff costs

The key cost element in providing Job Broker services is expenditure on staff. Our general approach to determining these costs was to ask each Job Broker to list the percentage of time each of their employees devoted to the New Deal for Disabled People (NDDP) and what the total cost (i.e. salary, bonuses and allowances, and fringe benefits such as pension contributions) was of employing that person. To protect confidentiality, and owing to the sensitive nature of the information involved, Job Brokers were asked to list staff by job title, rather than by name. When more than one person held the same job title, the number of full-time equivalent workers holding the position and the average salary of one full-time equivalent worker were requested. A small minority of Job Brokers were unable to access the requested information either before or during the meeting, but supplied it subsequently by post, email or telephone. Moreover, a few Job Brokers considered salary information too sensitive and would or could not divulge detailed staff costs and instead provided the total amount they expended on staff or the percentage of their total costs expended on staff.

As mentioned above, Job Brokers were asked to indicate the proportion of each member of staff's time that was devoted to NDDP work. This was in recognition of the fact that many Job Brokers also deliver programmes in addition to NDDP, such as Work Preparation and WORKSTEP. To avoid possible confusion, respondents were also asked to state the period of time to which the salary and fringe benefit values pertained (i.e., annual, monthly, fortnightly, or weekly).

Staff costs for each position were calculated, whenever possible, by summing the annual salary, bonuses, allowances and fringe benefits and then multiplying this figure by the product of the number of full-time equivalent employees holding the position

[9] The guidance notes sent to each Job Broker also included a request for unit costs - i.e., 'the full cost of providing one unit of each service that is provided in house' (MacDonald *et al.*, 2004). The notes acknowledged that such costs might not be available, and, without exception, this was indeed the case among the Job Brokers in the sample. Although such information would have been useful, it was not needed to determine costs engendered by the Job Brokers.

and the percentage of time they dedicated to NDDP activities. Total staff time was then computed by summing the resulting figures. Although most of the Job Brokers in the sample provided sufficient information to do this, a few did not. When they did not, it was necessary either to use a percentage of total costs figure provided by the Job Broker or to accept a total salary figure that the Job Broker supplied.

2.4.2 Overhead costs

The guidance notes accompanying the pro formas explained what kind of costs might be included as overhead and gave instructions for the calculation of an 'overhead rate', which was defined as 'overhead costs divided by total costs'. An alternative approach was also outlined, whereby overhead costs could be estimated by multiplying total expenditures on overheads by the proportion of the Job Broker's total staff cost dedicated to NDDP work. In the majority of cases, the latter calculation was used to determine the overhead costs of delivering the programme.

Overhead costs for a few Job Brokers included considerable outlay on new equipment – for example, the purchase of new telephones, printers and computers. Because such equipment is used over several years, the purchase price of this equipment was amortised (i.e. spread evenly over the useful lifetime of the equipment), based on a five-per cent interest rate and an assumption that replacement would be necessary after five years.

2.4.3 Payments to other organisations (external costs)

The analysis of the NDDP bid documents of successful Job Brokers indicated that the amount and type of support and training that Job Brokers were able to provide in-house varied. Although some intended to deliver all NDDP services in-house, others mentioned partner organisations or other organisations to which registrants would be referred. As indicated in Table 2.1, the *Survey of Job Brokers* (MacDonald *et al.*, 2004) identified a variety of reasons for referrals.

Although all of these externally received services presumably engendered costs, it was not possible to determine these costs where the organisation did not charge the Job Broker. However, as indicated below, Job Brokers appear to have sent relatively few of their clients to outside organisations. In cases where Job Brokers did pay for external services, they were asked to record the average payment per month. This amount (which, as shown in Chapter 3, was small for most Job Brokers) was then annualised and included in the cost of the operation.

2.4.4 Other costs

Some Job Brokers assisted their clients in other ways – for example, by giving them money to purchase interview clothes or tools, to cover transport costs, or to 'tide them over' until they began to receive pay from an employer. In addition, some Job Brokers paid clients for providing evidence of employment retention.[10] These expenditures were usually recorded as a total amount spent over the year and were included as part of each Job Broker's total costs.

Table 2.1 Reasons given by Job Brokers for referring NDDP clients to other organisations

Reasons for referring clients	Percentage of Job Brokers giving reason
Clients require more intensive support than we can offer	63
Clients are insufficiently job ready for us to help them	53
To acquire further educational qualifications	74
Basic skills training (literacy and numeracy)	65
Soft skills training (confidence building, communication skills)	29
Key skills training (computer skills, telephone skills)	57
Job searching	8
Job matching	11
Benefits advice	34
Careers advice	26
To gain work experience/a work taster	49
To gain work experience within a voluntary organisation	59
To get specialist help with their illness/disability	70
To get specialist help with other problems (alcohol/drug addiction)	71
Other help or advice	42
Base	*76*

Source: Survey of Job Brokers, MacDonald *et al.*, (2004)

[10] In order to receive the final incentive payment for clients, Job Brokers had to provide evidence to the Department that the client had remained in work for at least 26 weeks out of the first 39 weeks following job entry. Since October 2003, the 26-week threshold has been reduced to 13 weeks, to bring NDDP in line with the definition used for other New Deals. However, for the period covered by this study, the 26 week threshold applied.

2.5 Determining individual Job Broker's costs and profits

All cost information gathered from the Job Brokers was entered onto Excel spreadsheets, one for each organisation. In addition to the cost information, using figures supplied by the Job Brokers themselves, the number of registrations, full-time and part-time job entries, part-time to full-time transfers and part-time and full-time sustainments (i.e. job placements that continued for at least 26 weeks) credited to each Job Broker were recorded on their spreadsheets. To determine the income that each Job Broker received as a result of NDDP, these figures were then multiplied by the relevant Department for Work and Pensions (DWP) incentive reward for registrations, placements, and job sustainments (e.g. £104 for each registration). The profits (or losses) for each Job Broker were then computed by subtracting the Job Broker's annual total costs from its annual total income.[11]

2.5.1 Costs per registrant

Total costs per registrant were computed by dividing total annual costs by the number of registrants. Similarly, profits (or losses) per registrant were computed by dividing annual profits (or losses) by the number of registrants. Both computations were completed twice: first including and then excluding payments to outside organisations. Hence, these computations yielded four figures for each Job Broker in the sample:

- total costs per registrant, including payments to outside organisations;
- profits (or losses) per registrant, including payments to outside organisations;
- total costs per registrant, excluding payments to outside organisations; and
- profits (or losses) per registrant, excluding payments to outside organisations.

2.6 Limitations of the Job Broker cost data

As with all research, the quality of the analysis is dependent, at least in part, on the quality of the data under analysis. While every effort was made to obtain accurate and reliable data, to standardise and make it as comparable as possible, and to construct a dataset with the maximum amount of available information, the research team were constrained by what the Job Brokers could (and, in a few cases, would) provide. Nonetheless, we have considerable confidence that the costs estimates we present in Chapter 3, if not precise, closely approximate the costs actually borne by the Job Brokers in the sample. Some specific issues that arose in collecting cost data from the Job Brokers are discussed next.

[11] Some Job Brokers received outside funding, including funds from the European Social Fund. To the extent such funding existed, our measure of Job Broker profits will be understated because Job Broker costs were being subsidised from outside. We do not have data on the amount of these funds, but we suspect that they were typically small relative to the total Job Broker costs. Indeed, in collecting the cost data, several Job Brokers stated that they were losing money by participating in NDDP and none mentioned being subsidised by outside funding.

Most of the Job Brokers visited were extremely co-operative and made every effort to supply the requested information. Even so, collecting the data was an extremely lengthy process. Although the Job Brokers were visited within a four-week period, it took almost another six months to complete the spreadsheets in sufficient detail for the analysis to be conducted. The intervening time was used to enter the existing data onto the spreadsheets, chase missing data and query anomalies, and obtain clarification of the received information. In some cases this was made more complex by changes in Job Broker staff, which meant that the original respondents were no longer employed by the organisation. In order to pursue outstanding enquiries it was therefore necessary to revisit earlier stages of the process with their successors and attempt to obtain clarification and elaboration of data with which they were unfamiliar.

On the whole, the process can be considered to have been successful in that sufficiently detailed and reasonably reliable information was collected. However, as discussed in some detail in Chapter 3, it seems likely that two of the Job Brokers in the sample substantially understated their costs. In addition, it was not possible to obtain usable cost data from one Job Broker in the sample despite considerable efforts to obtain clarification and additional information. The cost data that were received from this Job Broker were inconsistent with interview information the Job Broker provided about its operations and were too incomplete to allow computation of the Job Broker's total costs. Hence, this Job Broker was omitted in computing the cost estimates reported in Chapter 3.

One reason for the length of the data collection process was the fact that each Job Broker in the sample delivered services in a unique way. This uniqueness was also reflected in how they kept or (in some cases) did not keep financial and performance monitoring information. Obviously, because of the amount of variation among Job Brokers in both their operations and in their record keeping, there were some difficulties in achieving comparability and consistency among the data they provided.

Only a few Job Brokers had record keeping systems that were entirely compatible with the format of the data collection pro formas sent to them. As a result, it was sometimes necessary to make estimates or assumptions in order to complete the pro formas. For example, the rental values of the building occupied by a Job Broker had to be approximated, when the facility was owned by the Job Broker or the Job Broker's rent was subsidised in some way. Approximations were also required when the contact at a Job Broker had imprecise knowledge of the percentage of time a particular staff member devoted to NDDP and the percentage of time that person devoted to other work. Filling in such gaps was mostly a collaborative process, whereby any necessary assumptions and approximations were those of the Job Brokers and were agreed upon with them during the field visits or by telephone or email.

Some Job Brokers felt that completing the pro formas was an extremely useful exercise, as it required them to collate and present information in a way that they had not previously considered. Most saw the potential value of the exercise, both to themselves and to the DWP, and some requested a copy of their individual spreadsheet when the dataset was finalised to use for self-evaluation. The research team worked closely with those Job Brokers who needed support, guidance, or clarification in terms of what was required.

3 Cost analysis: main findings

Summary

- Two key outcome measures were examined in the descriptive analysis: (1) total costs incurred by the Job Brokers; and (2) profits received or losses suffered by the Job Brokers (Section 3.2).
- The data obtained from different Job Brokers varied in quality, completeness and in two cases, its accuracy was suspect. A regression model was used to attempt to compensate for the latter problem (Section 3.2.2).
- The cost to Job Brokers of serving a typical registrant is probably between £600 and £900. However, the analysis implies that there is considerable variation among the Job Brokers in the costs that they bear. In particular, size matters: larger Job Brokers with more registrants incur lower costs (Section 3.3.1).
- Thirteen of the 19 Job Brokers in the sample suffered net losses, whilst six appear to have made profits. The average Job Broker incurred a loss of over £300 per registrant, although there is great variation among Job Brokers in terms of profits and losses. Job Brokers with relatively few registrants tend to lose money, whilst larger Job Brokers tend to be profitable (Section 3.3.2).
- Total costs per registrant appear to be affected by several factors: the number of registrants (Section 3.4.2), the Job Broker's economic sector (Section 3.4.2), and (possibly) the Job Broker's sustainment rate (Section 4.4.2).
- The range of services provided by Job Brokers and whether they had been previously involved in earlier initiatives with a similar client group do not appear to influence costs per registrant (Section 3.4.2).
- Profits for a typical Job Broker increase by around £4 or £5 per registrant as a result of a one per cent increase in the number of registrants at that Job Broker. Profits of Job Brokers that are in the public or private sectors are around £500 lower per registrant than those of other Job Brokers (Section 3.4.3).

- The sizes of the incentive payments for which Job Brokers are eligible do not appear to have much influence on their performance (Section 3.4.3).

3.1 Introduction

This chapter focuses on the costs incurred by, and profits received by, the 19 New Deal for Disabled People (NDDP) Job Brokers in our sample. The following chapter presents a fuller picture of the costs of NDDP by examining cost estimates that include costs borne by Jobcentre Plus in administering the programme, as well as costs incurred by Job Brokers. Section 3.2 discusses how the outcome measures were constructed, and techniques used to compensate for deficiencies and inaccuracies in the data. Section 3.3 presents estimates for Job Broker costs per registrant and profits per registrant, and Section 3.4 uses regression analysis to examine factors influencing costs and profitability.

3.2 Outcome measures

Most of the analysis in this section focuses on two key outcome measures: (1) total costs incurred by the Job Brokers; and (2) profits received or losses suffered by the Job Brokers. The first of these measures includes both costs incurred internally by Job Brokers and payments Job Brokers made to outside organisations for providing services to their NDDP clients. As discussed in Chapter 2, the second measure was computed by subtracting the total costs incurred by Job Brokers from the total incentive payments they received from the Department for Work and Pensions (DWP). A positive value for a Job Broker would imply that it is profiting from its participation in the NDDP programme and a negative value would imply that it is suffering financial losses and, hence, subsidising the programme.

The cost and profit estimates for each Job Broker have been divided by the number of NDDP clients registered by the broker.[12] This allows the performance of different Job Brokers, which vary greatly in size, to be compared to one another. Moreover, costs per registrant can be directly compared to the NDDP impact estimates, which are also computed on a per registrant basis.

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[12] For this purpose, data received from the DWP were used. However, as previously mentioned, data on the number of registrants were also provided by the Job Brokers in the sample. These two variables were very similar. The correlation between them was over .99. The mean of the Job Broker-reported number of registrants was 565 and the mean of the Department-reported registrants was 563, a statistically non-significant difference of 2. The *Documentary Analysis* included Job Brokers' projections of numbers of registrants. The mean projected number of registrants, 929, was much larger than the actual number of registrants and the correlation between the actual and projected number of registrants was only .57.

3.2.1 Compensating for flaws in the data

The results of the analysis are based on 19 of the 20 Job Brokers from which cost data were collected. As previously indicated, one Job Broker failed to provide usable data. As will be discussed in greater detail later, according to the cost data these 19 Job Brokers provided, four are receiving positive profits, 13 are suffering losses, and two are approximately breaking even. However, it is almost certain that the latter two Job Brokers overstated their costs in order to understate their profits. Although anecdotal information suggests that their performance is superior to that of most Job Brokers, based on the data they provided us, the 'profits' of one were exactly zero, a highly unlikely occurrence, whilst those of the other Job Broker differed only trivially from zero. Moreover, these two Job Brokers were the only ones that did not supply details about the components of their costs so that we could determine how their total costs were derived, but instead simply provided a total cost figure. Although each Job Broker was promised that the cost and profit information that they provided would not be divulged, as such information is proprietary, it seems likely that these two brokers were concerned that the Department would learn of their positive profits and, as a result, reduce the incentive payments they received. Nonetheless, as explained below, we use information provided by these two Job Brokers in all the estimates presented in this report.

3.2.2 Using the Tobit regression model

In essence, the inference is that the two brokers 'censored' their reported profits at zero by not permitting them to be positive. To predict what profits per registrant actually were for these two brokers, the Tobit regression model was used.[13] This is a well-known statistical procedure that was specifically developed to treat values that are censored at zero. To use this procedure, it was first necessary to set profits per registrant for the four Job Brokers that reported positive profits to zero. This adjusted profits variable, with the values for six observations censored at zero and 13 negative values then became the dependent variable in a Tobit regression. Two explanatory variables were used in estimating the regression: the natural log of the number of registrants and a dummy variable that equalled 1 if the Job Broker was from either the private sector or the public sector, and zero otherwise.[14] The results imply that both of the Job Brokers that provided suspect cost data actually made substantial profits.

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[13] We are indebted to Steve Bell for suggesting the use of the Tobit regression model for this purpose.

[14] The estimated Tobit regression appears below, with standard errors reported in parentheses below the regression coefficients:

profits =-3334 +619 ln(number of registrants) - 682 private/public dummy

(497) (100) (147)

The constant term and the coefficient on both variables are statistically significant at well above the one per cent level. The pseudo R2 = .145 for the regression and the LR χ^2 = 31.26 ($p < .0000$).

One way to assess the accuracy of the Tobit regression estimates is to use them to predict profits for the four Job Brokers that reported positive profits, and then compare these predictions with their reported profits, as there is no reason to suspect that the reported values for these four Job Brokers are in error. Predicted profits per registrant were about £500 higher than reported profits in one case, less than £100 higher than reported profits in two cases, and less than £100 lower in the remaining case. It is somewhat reassuring that the prediction errors were in both directions. Moreover, in three of the four cases, the prediction errors are very modest in magnitude relative to the profits and losses reported by the Job Brokers; 12 of the 19 Job Brokers reported profits or losses per registrant that exceeded £250, in six instances by more than twice this amount.

A second way to assess the Tobit estimates is to recompute total costs for the two suspect Job Brokers by subtracting their predicted profits from the DWP incentive payments they received.[15] These recomputed total costs are, of course, smaller than their reported costs, which, as indicated above, were probably overstated. However, one can ask whether recomputed costs per registrant appear plausible, keeping in mind that anecdotal information suggests that these two Job Brokers run highly efficient operations. The recomputed costs per registrant for one of the suspect Job Brokers, while low, appear quite plausible. Several other Job Brokers have total costs per registrant that are not much higher and one has even lower costs. Recomputed costs per registrant for the other Job Broker are near zero and, hence, are implausible. Consequently, we assume that the recomputed total cost per registrant for the first Job Broker also applies to the second Job Broker. It seems likely that true total costs per registrant for these two Job Brokers are within a few hundred pounds of their recomputed total costs; but, of course, there is no way of knowing this with certainty.

To summarise, reported profits are almost surely too small and reported total costs too high for two of the Job Brokers, while profits and total costs that have been predicted by using estimates from the Tobit regression may be too high and too low, respectively. To address the uncertainty about the 'true' values, the estimates presented in the rest of this report were all calculated twice, first using the reported values for these two

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[15] As an alternative way of determining the costs of the two Job Brokers with suspect data, we first computed an ordinary least squares regression for the remaining 17 Job Brokers in which their reported costs per registrant was the dependent variable and the independent variables were the same as those used in the Tobit regression. We then used this regression to predict the costs of the two suspect Job Brokers. The predicted costs were very similar to those computed using the Tobit regression. The ordinary least squares regression appears below:

costs = 2773 – 373 ln (number of registrants) + 682 private/public dummy

(418) (81) (156)

The coefficients are statistically significant at the 1 per cent level; the adjusted R^2 = .569 and the F-value = 11.5.

variables for all 19 Job Brokers and then again using the Tobit-predicted values for the two variables for the two suspect Job Brokers and reported values for the remaining 17 Job Brokers. Thus, both procedures permit the analysis to be based on all 19 Job Brokers. The first procedure treats all 19 Job Brokers (including the two suspect Job Brokers) as if they provided accurate information on their costs, while the second procedure treats 17 Job Brokers as if they reported accurate information on their costs and the two suspect Job Brokers as if they overstated their costs. This approach should allow bracketing of the true values, although, in our view, it is likely that the true values are closer to the estimates that rely on the Tobit regression. Fortunately, as will be seen, the two sets of calculations do not differ by large magnitudes, but the differences are not trivial either.

3.3 Average and median Job Broker costs and profitability

3.3.1 Job Broker costs per registrant

Table 3.1 provides information on the total costs per registrant incurred by Job Brokers. Costs are reported in several different ways: First, the table provides cost calculations that rely entirely on cost information reported by the Job Brokers and calculations in which the values for two of the 19 Job Brokers have been recomputed using the Tobit regression estimates discussed above. Second, both unweighted and weighted cost estimates are presented, with the weight for each Job Broker the proportion of all registrants in the sample accounted for by that Job Broker (the 19 Job Brokers have a total of 10,697 registrants). Thus, in computing the weighted estimates, a Job Broker that has twice as many registrants as another has twice the influence. Third, both mean (or average) costs and median costs are shown. Mean unweighted costs (i.e., average costs) may be interpreted as the costs per registrant borne by a typical or average job broker, while mean weighted costs are the costs of serving a typical registrant. Median unweighted costs are simply the total costs per registrant for the middle Job Broker, with nine Job Brokers having higher costs per registrant and nine having lower costs per registrant. Median weighted costs are the costs of serving the middle registrant – that is, approximately as many registrants were served at higher costs as at lower costs. Thus, like the estimates to be provided by the impact analysis, the weighted means and medians in Table 3.1 use the registrant, rather than the Job Broker, as the unit of analysis. Hence, they are probably more meaningful than the unweighted means and medians. An advantage of the median over the mean is that its value cannot be driven by one or two Job Brokers with extremely high or extremely low costs.

Table 3.1 Job Broker costs per registrant

	Unweighted		Weighted	
	Reported	Tobit-adjusted	Reported	Tobit-adjusted
Mean	£999.15	£937.02	£847.73	£617.68
Median	£942.61	£780.12	£942.61	£593.25
Standard deviation	£430.72	£468.66	£254.85	£276.54
Number	19	19	10,697	10,697

The values that appear in Table 3.1 consist almost entirely of costs incurred internally by Job Brokers. Typically, the payments made by Job Brokers to other organisations for providing services to their NDDP clients accounted for only around £25 per registrant or about three per cent of its total expenditures.

The fact that the unweighted means shown in Table 3.1 are larger than their weighted counterparts implies that larger Job Brokers with more registrants incur lower costs. We return to this topic below. The weighted values in Table 3.1 indicate that the cost to Job Brokers of serving a typical registrant is probably between £600 and £900. The rather large standard deviations, especially for the unweighted means, imply that there is substantial variation among the Job Brokers in the costs that they bear. This can also be seen if the Job Brokers are ranked in terms of the magnitude of their total costs. For example, the Job Broker ranked at the 75th percentile bears costs that approach twice the size of those incurred by the Job Broker at the 25th percentile.

3.3.2 Job Broker profits and losses per registrant

Table 3.2, which is similar in design to Table 3.1, shows the profits received or losses sustained by Job Brokers. The mean profits reported in the table are simply the difference between Job Broker costs and the incentive payments they receive from DWP for each registrant. Thus, the average DWP payment per registrant was £632 in the case of the unweighted means and £857 in the case of the weighted means, implying that larger Job Brokers received larger payments per registrant than smaller Job Brokers. As will be shown later, this is because larger Job Brokers place a higher proportion of their registrants into jobs.

As mentioned previously, 13 of the 19 Job Brokers in the sample incurred costs that exceeded the incentive payments they received and therefore suffered net losses. Indeed, the average Job Broker incurred a loss of over £300 per registrant, although the very large standard deviation implies that there is great variation among Job Brokers in terms of profits and losses. The fact that the weighted means and medians in Table 3.2 are positive, while their unweighted counterparts are negative, indicates that it is the Job Brokers with relatively few registrants that tend to lose money, whilst larger Job Brokers are likely to be profitable. Thus, it may not be possible for smaller Job Brokers to continue to participate in NDDP unless their incentive payments are

considerably increased. However, the weighted median value implies that over half of the individuals who registered with the Job Brokers in the sample are being served by these Job Brokers at a profit.

Table 3.2 Job Broker profits and losses per registrant

	Unweighted		Weighted	
	Reported	Tobit-adjusted	Reported	Tobit-adjusted
Mean	-£367.03	-£305.21	£9.37	£238.46
Median	-£202.02	-£202.02	£67.58	£270.93
Standard deviation	£560.06	£633.15	£323.43	£449.82
Number	19	19	10,697	10,697

3.4 Determinants of Job Broker costs and profits

What are the factors that allow some Job Brokers to keep their costs relatively low and to turn a profit and others to incur high costs and suffer losses? As already seen, size clearly matters. Moreover, there is great variation in the size of the Job Brokers in the sample. The mean number of registrants is 563, with a standard deviation of 767. Three Job Brokers had fewer than 100 registrants and three had more than 1,000 registrants. Thus, this section examines the relationship between the number of registrants and Job Broker costs and the relationship between the number of registrants and Job Broker profitability.

3.4.1 Additional variables

As suggested earlier, Jobs Brokers differ in numerous other dimensions than just size – for example, in the types of disabilities their clients have, the services they provide, how they are organised, their contractual arrangements with DWP, and so forth. Thus, this section also explores whether there are factors in addition to size that influence costs and profitability by examining a large number of potential explanatory variables in addition to Job Broker size. It is important, for example, to allow for the possibility that Job Brokers with lower costs are providing less expensive services.

Measures of a few of the variables that we examine in this section were obtained during the field visits to the Job Brokers including, for example:

- the amount of the incentive payment each Job Broker received for placing a registrant in a full-time job;
- the amount of the incentive payment for each registrant who sustained full-time employment for at least six months.

A few others were obtained from the DWP. For example:

- the percentage of registrants each Job Broker placed in a job; and
- the percentage of registrants at each Job Broker who sustained employment for at least six months.[16]

Many other variables were acquired from the *Survey of Job Brokers*. These included:

- whether each Job Broker participated in the pilot programme before NDDP was rolled out nationally in 2001;
- whether each Job Broker specialised in a particular type of disability;
- each Job Broker's economic sector (public, private, voluntary, and mixed/other); and
- whether each Job Broker provided certain specific services (CV preparation, basic skills training, soft skills provision, training in computer and telephone skills, job search, job matching, advice on benefit payments and work experience).

Finally, data on the receipt of services by registrants at each Job Broker in the sample were extracted from the *Survey of Registrants*. For example, this information includes measures of the number of face-to-face interviews and the number of telephone contacts with Job Broker advisers in which an average registrant at each Job Broker was involved. In addition, we constructed measures of the percentage of each Job Broker's NDDP clients that:

- prepared a CV;
- attended training;
- received work experience;
- started a work preparation programme; and
- started voluntary work.

Once the number of registrants was taken into account, only a few of these variables had a statistically significant relationship with either Job Broker costs or profitability. This is not too surprising given the small sample of only 19 Job Brokers and the fact that some of the explanatory variables are probably measured with considerable error, especially those obtained from the *Survey of Registrants*. A larger sample and better measures of some of the explanatory variables might have resulted in

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[16] To create the job placement variable, full- and part-time job placements were summed by counting a part-time placement as half a full-time placement. Similarly, to create a measure of the percentage of registrants who sustained employment, registrants who were employed part-time received half as much weight as those who were employed full-time.

more statistically significant relationships being uncovered. On the other hand, in an exploratory analysis conducted with a large number of potential explanatory variables, such as this one, a few statistically significant relationships are likely to be found on the basis of chance alone, even though a true relationship does not exist. Consequently, with the exception of the relation between the number of registrants and Job Broker costs and profitability, the small number of statistically significant relationships that we report should be considered tentative and treated with care.

3.4.2 Factors influencing the costs of Job Brokers

Table 3.3 contains unweighted ordinary least squares (OLS) regression estimates in which total costs per registrant is the dependent variable. Unweighted regressions allow each Job Broker to have equal influence on the results regardless of their size. Doing this is appropriate because we wish to determine the factors that cause costs per registrant to vary among Job Brokers. Thus, the individual Job Broker is the proper unit of analysis.

The regression results in which the total cost values for two of the Job Brokers have been recomputed on the basis of the Tobit regression estimates are stronger than those that rely on the reported values for all 19 Job Brokers. That is, their adjusted R-squares and F-values are larger and their coefficients more significant. This is consistent with either of two possible explanations: the Tobit corrections resulted in more accurate values or the recomputed values are themselves based on a regression that is not too dissimilar from those reported in Table 3.3. Both explanations probably contain some truth.

Number of registrants

The key explanatory variable in these regressions is the natural logarithm of the number of registrants at each Job Broker. A logarithmic specification, rather than a linear specification was used, because it was thought likely that the addition of 100 registrants would have a different effect on the costs per registrant for a Job Broker with 200 registrants than for one with 2,000 registrants, but that a 10 per cent increase in registrants would have a similar effect on each. The logarithmic specification did, in fact, provide the better fit. The coefficients on Job Broker size are highly statistically significant at conventional levels in all four regressions shown in Table 3.3. The smallest of the coefficients implies that a one per cent increase in the number of registrants at a typical Job Broker would reduce its costs by £2.15 per registrant, whilst the largest coefficient implies a per registrant cost reduction of £4.22. Given the enormous range in Job Broker size – some are more than 10 times larger than others – the relationship between size and costs is very substantial.

Table 3.3 Unweighted OLS regression estimates of factors influencing Job Broker costs per registrant

	Dependent Variable: Reported		Tobit-adjusted	
	Regression 1	Regression 2	Regression 1	Regression 2
Constant	2055.521	2390.923	2531.306	2783.328
	(417.50)	(425.09)	(345.71)	(359.43)
	[.00]	[.00]	[.00]	[.00]
Ln(number of registrants)	-214.751	-354.715	-316.353	-421.522
	(75.02)	(101.15)	(62.12)	(85.52)
	[.01]	[.00]	[.00]	[.00]
Public or Private = 1	282.532	305.961	343.763	361.368
	(172.25)	(160.11)	(142.63)	(135.377)
	[.12]	[.08]	[.03]	[.02]
% Reg. with Sustained Employment		38.130		28.65
		(20.02)		(16.92)
		[.08]		[.11]
Adjusted R2	.285	.386	.586	.629
F-value	4.587	4.771	13.735	11.180
Number of observations	19	19	19	19

*Standard errors appear in parentheses, ( ), and p-values in brackets, [ ]

Different economic sectors

A second variable in the regression is a dummy variable that equals one for Job Brokers that are either Government-operated (seven Job Brokers) or operated by a private sector firm (three Job Brokers) and zero for Job Brokers that are operated by a voluntary organisation (six Job Brokers) or do not fall under any of the first three categories (three Job Brokers). Regressions with separate dummy variables for public sector and private sector Job Brokers were also run, but their coefficients were very similar. Thus, to preserve degrees of freedom, the two variables were combined. The combined variable is marginally statistically significant or insignificant in the regressions that use costs reported by the Job Brokers but highly statistically significant in the regressions in which costs have been recomputed using the estimates from the Tobit regression. The coefficients in these regressions imply that the costs incurred by public and private sector Job Brokers are from £283 to £361 higher per registrant than they are for other Job Brokers. It would not be surprising perhaps if public sector Job Brokers operate at higher costs per registrant than voluntary organisations, but the relatively high cost of private sector Job Brokers is not readily explained.

Sustainment rate

Two of the regressions that appear in Table 3.3 include a third variable, the sustainment rate, which is measured as the percentage of all registrants at each Job Broker who sustain employment for a minimum of six months. The unweighted average sustainment rate for the 19 Job Brokers in the sample is 11.5 per cent, with a standard deviation of 5.8 and a range of between 4 and 22 per cent. Placing registrants in permanent jobs and keeping them employed once they are placed is presumably the key goal of NDDP, but as just indicated, some Job Brokers are much more successful in accomplishing this objective than others. Presumably, the more successful Job Brokers spend more to increase job retention. The regression results weakly support this argument. The coefficient estimates for the sustainment rate variable, which are statistically significant at conventional levels in only one regression, and then only marginally, imply that increasing the sustainment rate by one percentage point is associated with a spending increase by a typical Job Broker of £30 or £40 per registrant.

Services provided and previous experience

As mentioned previously, the relationships between costs and a number of other variables were examined but did not prove to be statistically significant once Job Broker size was taken into account. The absence of evidence that such relationships exist is noteworthy. For example, it is somewhat surprising we could find no evidence that Job Brokers' costs are affected by the mix of services they provide[17]. It was also anticipated that Job Brokers that participated in the pilot programme before NDDP was rolled out nationally in 2001, as six in the sample did, would have lower costs per registrant than the other Job Brokers by virtue of their greater experience. However, these Job Brokers also tended to be among the larger Job Brokers in the sample; indeed, the simple correlation between the number of registrants and a dummy variable representing early participation is .629 ($p = .002$). Nonetheless, it appears highly unlikely that the strong negative relation between the Job Broker size variable and Job Broker costs reflects the early entry of some of the larger Job Brokers into the NDDP programme because the coefficient on the size variable changes very little when the dummy variable for early participation is added to the regression.

3.4.3 Factors influencing profits per registrant

Table 3.4 presents regression estimates of the relationship between profitability and Job Broker size and between profitability and Job Broker economic sector. We again estimate unweighted regressions because we want to determine how Job Broker size and economic sector cause profits per registrant to vary among Job Brokers. Thus, the individual Job Broker is the unit of analysis. Both variables are highly statistically

[17] It is possible, of course, that we did not have the most appropriate measure of service mix. For example, a composite measure of services provided such as the number of hours spent working with an average registrant might have been found to influence costs, but such a measure was not available.

significant at conventional levels and imply that profits for a typical Job Broker increase by around £4 or £5 per registrant as a result of a one per cent increase in the number of registrants at that Job Broker and that the profits of Job Brokers that are in the public or private sectors are around £500 lower per registrant than those of other Job Brokers. None of the other potential explanatory variables examined were statistically significant.

Table 3.4 Unweighted OLS regression estimates of factors influencing profits per registrant

Dependent Variable	Reported	Tobit-adjusted
Constant	-2242.250	-2715.886
	(394.09)	(338.12)
	[.00]	[.00]
Ln(number of registrants)	379.445	480.644
	(70.81)	(60.75)
	[.00]	[.00]
Public or Private = 1	-482.670	-544.282
	(162.59)	(139.50)
	[.01]	[.00]
Adjusted R2	.623	.783
F-value	15.885	33.471
Number of observations	19	19

*Standard errors appear in parentheses, ( ), and p-values in brackets, [ ]

It is important to recognise that the profit measure consists of two separate components: incentive payment receipts and Job Broker costs. Obviously, the first of these components contributes positively to profits and the second contributes negatively. As a result, the sustainment rate does not have a statistically significant relationship with profits because the increase in the amount of incentive payments that results from a higher sustainment rate tends to be offset by an increase in costs. Job Broker size, in contrast, is strongly related to profits because larger Job Brokers tend both to have lower costs per registrant, as we have previously demonstrated, and to receive higher incentive payments per registrant. As seen in Table 3.5, which is discussed next, the higher incentive payments result, in turn, because larger Job Brokers tend to be more effective in placing registrants in jobs.

3.4.4 Factors influencing placement and sustainment rates

Table 3.5 uses OLS regressions to examine the relationships between Job Broker size and three alternative measures of Job Broker success:

1. the percentage of registrants that are placed into jobs;
2. the percentage of registrants that sustain employment for at least six months after they are placed;
3. the percentage of those that are placed that sustain employment for at least six months.[18]

In addition, the relationship between the size of the incentive payments and the three measures of Job Broker success are also estimated in the regressions. In the first of the three regressions, the measure of the incentive is the payment for a full-time placement, while the measure used in the other two regressions is the payment for a full-time sustainment.[19]

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[18] In computing these rates, we again used data reported to us by the Department, rather than the data provided us by the Job Brokers in the sample. However, the placement and sustainment rates calculated with the Job Broker-reported and Department-provided data were similar, although rates computed with the latter were slightly larger. Correlations between the two sets of rates were also high. However, rates computed using the numbers of registrations, placements, and sustainments Job Brokers had projected in their NDDP bids were much larger than the rates computed with either set of actual data. For example, the projected sustainment rate was more than double either of the actual sustainment rates. Moreover, the correlations between the actual and projected rates were small, sometimes negative, and always statistically insignificant.

[19] The particular incentive payment measure that is used matters little, in fact, as the correlation between them is .94. In addition, the correlation between each of these measures and their part-time counterparts is above .95.

Table 3.5 Unweighted OLS regression estimates of factors influencing the placement and sustainment rates

	Outcome:		
	Percentage of registrants placed in employment	**Percentage of registrants who sustain employment**	**Percentage of those placed who sustain employment**
Constant	-10.978	-12.795	20.33
	(8.78)	(5.56)	(25.57)
	.[33]	[.04]	[.43]
Ln(number of registrants)	6.654	3.53	0.57
	(1.27)	(.81)	(3.71)
	[.00]	[.00]	[.88]
Incentive Payment	-.000	.003	.016
	(.004)	(.003)	(.012)
	[.914]	[.21]	[.20]
Adjusted R2	.589	.523	-.007
F-value	13.903	10.887	.938
Dependent Variable			
Mean	25.741	11.478	44.868
Standard Deviation	9.872	5.826	18.438
Number of observations	19	19	19

*Standard errors appear in parentheses, ( ), and p-values in brackets, [ ]

The coefficients on Job Broker size in the first two regressions are highly statistically significant at conventional levels and indicate that a 10 per cent increase in the number of registrants would be associated with an increase in the placement rate of two-thirds of a percentage point (.67) and in the sustainment rate of about a third of a percentage point (.35). These effects are quite substantial relative to the means of the placement rate (25.7) and sustainment rate (11.5). The coefficient on the number of registrants is statistically insignificant in third regression, however, and suggests that Job Broker size has a minor effect, at most, on whether a registrant remains in employment for at least six months after they are placed. The three coefficients on the size of the incentive payments are statistically insignificant and negligible in magnitude. Taken literally, they imply that a £100 increase in incentive payments would have no effect on the placement rate, would increase the sustainment rate by one-third of a percentage point and would increase the percentage of those placed who sustain their jobs by a little more than a percentage point and a half. Overall, these findings suggest that an increase in the incentive payments is likely to have little payoff for either NDDP customers or the Department. However, because the coefficients on which the findings are based are imprecisely estimated, the prescription for policy that they imply must be considered weak.

4 Cost analysis: cost-effectiveness

Summary

- The costs borne by Jobcentre Plus in administering NDDP are £127 per registrant. These costs exclude the incentive payments the Government makes to Job Brokers (Section 4.2).
- The total cost of serving a typical New Deal for Disabled (NDDP) registrant (that is the cost incurred by both the individual Job Brokers and Jobcentre Plus) is £700 to £1,100[20] (Section 4.5).
- This total cost estimate will be overstated if participants in NDDP would have received some of the programme's services even in the absence of the programme and understated if they are directed to services by Job Brokers that are not paid for by the Job Brokers. However, these errors tend to be offsetting and existing evidence suggests that they are small (Sections 4.3 and 4.4).
- Job Broker size is strongly inversely related to costs per sustainment. Costs per sustainment are higher at the eight Job Brokers in the sample that provide training in computer and telephone skills (Section 4.5).
- Total cost per job placement is £2,000 to £3,000 and total cost per job sustainment is £4,000 to £5,000 (Section 4.5).

[20] The range of values that are reported here and elsewhere in this chapter results because we report both weighted and unweighted estimates and because we report estimates that are adjusted and not adjusted for the fact that we suspect two Job Brokers of having overstated their costs.

4.1 Introduction

This chapter investigates the cost-effectiveness of the NDDP programme. To do that, the measure of costs must include **all** the costs that result from the programme, not just the costs incurred by the Job Brokers. Thus, the costs borne by Jobcentre Plus in administering NDDP are added to the cost measure used in this chapter, which was limited to costs incurred by brokers. The measurement of Jobcentre Plus' administrative costs is discussed in Section 4.2. As mentioned in Part I, because of the lack of data, it was not possible to measure costs that result from NDDP but which are not borne by Job Brokers. The importance of this omission is discussed in Section 4.3. Because of the lack of cost data for a control group, it is also possible that the cost measure we use includes some costs that would have occurred even in the absence of NDDP. The importance of this limitation is considered in Section 4.4. Finally, Section 4.5 reports on NDDP cost effectiveness in terms of participants' employment and employment retention.

4.2 Jobcentre Plus administrative costs[21]

The objective of this section is to determine the central administrative costs that Jobcentre Plus incurred as a result of operating NDDP. To make them comparable to the per registrant cost figures given for the individual Job Brokers in Table 3.1, the total central administrative costs is divided by the total number of NDDP registrants. A separate account of the costs that Jobcentre Plus incurred in administering NDDP was maintained for the first nine months after the programme was implemented nationally in July 2001, but not thereafter. Thus, we rely on cost figures for 1 July 2001 through 31 March 2002 to determine Jobcentre Plus' administrative costs and assume that NDDP central administration costs per registrant did not change very much between this period and the period covered by the cost data we collected from our sample of Job Brokers (1 April 2002 to 31 March 2003).

According to DWP accounting records, Jobcentre Plus expended a total of £4,755,371 on NDDP from 1 July 2001 to 31 March 2002. However, this figure includes both incentive payments made to three internal Job Brokers and expenditures in operating the three internal Job Brokers.[22] These amounts, which totalled £3,051,806, between 1 July 2001 and 31 March 2002, are already counted in determining costs incurred by individual Job Brokers and, thus, to avoid double counting, need to be subtracted

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[21] We are indebted to Henry Shennan of the Department for Work and Pensions for providing the data needed to derive the estimates reported in this section.

[22] The three 'internal Job Brokers' were established and operated directly by several Jobcentre Plus districts. Staff salaries and other expenditures incurred in operating the internal Job Brokers were paid by Jobcentre Plus.

from the £4,755,371 figure mentioned above.[23] Thus, Jobcentre Plus' central administrative costs from 1 July 2001 to 31 March 2002 totalled £1,703,565. Dividing this amount by the 13,410 individuals who registered in NDDP over the same time period gives a figure of £127.04 per registrant,[24] which we use as our estimate of Jobcentre Plus's central administrative costs in operating NDDP.

4.3 Costs engendered but not incurred by Job Brokers

Evidence from the *Survey of Registrants*, the *Survey of Job Brokers*, and the cost analysis suggests that partner organisations make a very real contribution to the delivery of the programme, which is not yet sufficiently understood.[25] Unfortunately, when NDDP participants were receiving services from partner organisations or other organisations for which the Job Brokers did not have to pay, the Job Brokers did not have a way of attributing value to these services and, hence, it was not possible to include their value in the cost analysis.

Nevertheless, the evidence that exists suggests that such costs are likely to be small. The Job Brokers themselves indicated during field visits that they make relatively few referrals to other organisations. This is consistent with evidence from the *Survey of Registrants*. For instance, 25 per cent of the first cohort of survey respondents reported contacting another organisation since registering with their Job Broker and,

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[23] The incentive payment amount was determined by multiplying the number of registrations, job placements and job sustainments at each of the three internal Job Brokers between 1 July 2001 and 31 March 2002 by the incentive payment they received for each registration, placement and sustainment. To determine expenditures on the three internal Job Brokers, we multiplied the number of individuals who registered at these Job Brokers between 1 July 2001 and 31 March 2002 by an estimate of costs per registrant at the internal Job Brokers. The latter figure came from our estimates of costs per registrant incurred by the two internal Job Brokers that happened to be in our sample of 19 Job Brokers. Costs per registrant at these two Job Brokers were very similar to one another and we simply took an average of the two values.

[24] Even in the absence of NDDP, some similar central administration costs might still have occurred. However, there is no way to estimate these costs, although they likely to have been small.

[25] Thus, further work targeted at specific types of partner organisations or of service delivery by partner organisations might be useful in illuminating the value of their input to participants and to the programme as a whole. Doing such work could prove difficult, however. For example, a pilot of a Job Broker partner survey questionnaire suggested that *'the links between many Job Brokers and their partner organisations appeared to be too tenuous and complex for a postal questionnaire …'* (MacDonald *et al.*, 2004). As a result, the survey was abandoned.

of these, 14 per cent said that they had been referred to that organisation by their Job Broker (Ashworth *et al.*, 2003). Thus, fewer than four per cent (.25 x .14) of all NDDP clients appear to have received services from other organisations **as a result of referrals by Job Brokers**. Moreover, the Job Brokers paid for at least part of these services, and to the extent they did, these costs are included in the cost estimates. Results from the second cohort of survey respondents, obtained about three months later, are virtually identical (Kazimirski *et al.*, 2004).

4.4 Inability to measure NDDP's impact on costs

'Impact' can be defined as the net difference between observed changes in the performance of a group subjected to a policy intervention and a control group not subjected to the intervention but otherwise similar to the intervention group. Ideally, the NDDP cost analysis would measure the programme's impact on costs, that is, 'the change in costs' (Greenberg and Appenzeller, 1998) resulting from the programme. Unfortunately, cost data are not available for a control group that is comparable to the NDDP intervention group. Consequently, NDDP's impact on costs, its net cost, cannot be measured. It is only possible to measure the gross costs of delivering the programme - that is, the direct outlays required. Because some participants in NDDP would probably have received similar services in the absence of the programme, its net costs are likely to be lower than its gross costs.

Nevertheless, it appears unlikely that gross costs are much larger than net costs. There is evidence that a considerable variety of employment-focused services for the disabled were widely available prior to the national roll out of NDDP (Arksey, *et al.*, 2002). Moreover, at least some of these services are used by substantial numbers of disabled persons who are not participating in NDDP. For example, five per cent of the respondents to the *Survey of the Eligible Population*, very few of whom were NDDP participants, indicated that they had received education or training during the four weeks prior to being interviewed (Woodward, *et al.*, 2003). However, the *Survey of Registrants* indicates that while almost a quarter of NDDP participants received education or training while registered, nearly 90 per cent of these persons received their education or training from organisations other than Job Brokers (Adelman, *et al.*, 2004) and, as seen above, few of these persons were referred to these organisations by Job Brokers. In other words, training provided by Job Brokers does not seem to substitute for education and training that takes place elsewhere to a very great extent. Somewhat similarly, while a quarter of respondents to the *Survey of Registrants* stated that they undertook voluntary work while registered for NDDP, about 85 per cent of these persons indicated that they would have done this even if they were not registered (Adelman, *et al.*, 2004). Again, it does not appear that services provided or initiated by Job Brokers are replacing many services provided elsewhere. Thus, we believe that most of the costs incurred by Job Brokers (but not all) are costs that exist only because of the NDDP programme.

4.5 Cost-effectiveness ratios

Table 4.1 shows three alternative cost-effectiveness ratios:

1. Total cost per registrant.
2. Total cost per job placement.
3. Total cost per job sustainment.

To compute the first of these measures, the estimate of the central administrative costs of £127.04 per registrant that Jobcentre Plus incurred in operating NDDP was added to the mean and median values previously presented in Table 3.1. The second cost-effectiveness ratio was computed by adding the central administrative cost per job placement (£357.05) to each Job Broker's cost per placement, and the third ratio was computed by adding the central administrative cost per sustainment (£731.38) to each Job Broker's cost per sustainment. Because sustainment is presumably the ultimate objective of NDDP, and placement is an intermediate goal intended to lead to permanent employment, the third measure is probably the most interesting of the three. However, the first is most relevant to the cost-benefit analysis described in Part III, because the impact of NDDP on earnings, a key programme benefit, is measured as the programme's effect on the earnings of a typical registrant. Similarly, NDDP's impact on the amount of incapacity benefits received, a key potential benefit of the programme to the Government, is estimated as the programme's effect on an average registrant. These averages are computed over all NDDP registrants, both those placed in jobs and those not placed in jobs.

Table 4.1 Alternative cost-effectiveness measures

	Unweighted		Weighted	
	Reported	Tobit-adjusted	Reported	Tobit-adjusted
	Total costs per registrant			
Mean	£1,126.19	£1,064.06	£974.77	£744.72
Median	£1,069.65	£907.16	£1,069.65	£720.29
Standard deviation	£430.72	£468.66	£254.85	£276.54
Total Costs per placement				
Mean	£4,938.93	£4,784.91	£3,004.82	£2,430.21
Median	£3,948.95	£3,948.04	£2,741.69	£1,808.71
Standard deviation	£2,866.25	£3,018.04	£1,554.82	£1,759.41
	Total costs per sustainment			
Mean	£13,141.13	£12,847.42	£6,788.69	£5,694.92
Median	£8,817.81	£8,817.81	£5,330.33	£3,670.03
Standard deviation	£11,440.92	£11,679.95	£5,641.84	£6,043.04
Number	19	19	10,697	10,697

If the NDDP cost estimates are over- or understated, the cost-effectiveness ratios in Table 4.1 would, of course, also be over- or understated, respectively. As previously indicated, the cost estimates will be overstated if participants in NDDP would have received some of the programme's services even in the absence of the programme and understated if they are directed to services by Job Brokers that are not paid for by the Job Brokers. As previously suggested, these errors tend to be offsetting and appear to be small.

The third cost-effectiveness ratio in Table 4.1 is larger than the second and the second ratio is larger than the first because many NDDP registrants are not placed and many of those who are placed do not work for the six months necessary to count as a sustainment. For example, a typical registrant has only about a 36 per cent probability of being placed and only around a 17 per cent chance of working over six months.

As previously demonstrated, the costs of smaller Job Brokers tend to be relatively high and their placement and sustainment ratios relatively low. Hence, as would be anticipated, the regressions reported in Table 4.2 indicate that Job Broker size is strongly inversely related to costs per sustainment. More specifically, the results suggest that a one per cent increase in the number of registrants at a Job Broker of average size would reduce that Job Broker's costs per sustainment by around £60. This does not demonstrate, however, that larger Job Brokers are necessarily more cost-effective than smaller Job Brokers. They may, for example, simply work with registrants who are more easily placed and kept in jobs or operate in labour markets with more job openings[26]. The regressions also provide some evidence that, holding size constant, costs per sustainment are higher at the eight Job Brokers that provide training in computer and telephone skills. There were no other statistically significant explanatory variables.

Returning to Table 4.1, it can be seen that mean costs per sustainment are considerably larger than median cost per sustainment. This is because the fraction of registrants who sustained employment for over six months was very small at a few Job Brokers. Indeed, while the sustainment rates for 11 of the 19 Job Brokers in the sample are above 10 per cent, they are under five per cent for four other Job Brokers. As a consequence, the cost per sustainment is very high for the latter Job Brokers (indeed, above £20,000 for three). This pulls up the mean, but not the median. Thus, the median cost per sustainment is probably a more reliable measure of the performance of relatively efficacious Job Brokers, although the mean is more appropriate for making comparisons among Job Brokers.

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[26] It will be seen in Part III that although larger Job Brokers have greater impacts on reducing incapacity benefits than smaller Job Brokers, they do not necessarily have greater impacts on employment levels.

Table 4.2 Unweighted OLS regression estimates of factors influencing total costs per sustainment

		Dependent Variable			
		Reported		Tobit-adjusted	
		Regression 1	Regression 2	Regression 1	Regression 2
Constant	43,742.259	42,603.043	45,906.677	44,842.418	
		(10,828.39)	(9,853.87)	(10,725.01)	(9,913.04)
		[.00]	[.00]	[.00]	[.00]
Ln(number of registrants)		-5,468.977	-5,926.776	-5,908.289	-6,335.966
		(1,894.41)	(1,734.62)	(1,876.32)	(1,745.03)
		[.01]	[.00]	[.01]	[.00]
Job Broker Provides Computer and Telephone Skills = 1			8,789.361		8,211.042
			(4,103.07)		(4,127.71)
			[.05]		[.06]
Adjusted R2		.284	.413	.331	.430
F-value		8.334	7.341	9.915	7.799
Number of observations		19	19	19	19

*Standard errors appear in parentheses, ( ), and p-values in brackets, [ ]

The unweighted cost-effectiveness ratios in Table 4.1 are larger than their weighted counterparts, especially in the case of costs per sustainment. This is because, as seen in Table 4.2, the smaller Job Brokers tend to be the least cost-effective. Thus, when given as much weight as the larger, more cost-effective Job Brokers, they cause the mean and median cost-effectiveness ratios to be higher than when they are given less weight. The weighted ratios are more relevant for our purposes because they indicate the cost per sustainment (or per placement or per registrant) for the typical or the median NDDP participant, rather than for the average or median Job Broker.

Focusing on the weighted median values reported in Table 4.1, it appears that the cost per registrant is £700 to £1,100, the cost per placement is £2,000 to £3,000 and the cost per sustainment is £4,000 to £5,000. Are these figures large or small? A simple way of looking at this is to determine the number of hours a NDDP registrant would have to work to earn £5,000. At a minimum wage of £4.20, the adult minimum that existed during the time period covered by the cost data, such an individual would have to work nearly 1,200 hours. A registrant who works 30 hours a week over a year would work well over 1,200 hours. Of course, many NDDP registrants who sustain employment would work more than a year (they must work at least six months to count as a sustainment) and earn more than the minimum wage. Consequently, the earnings of such persons will be far larger than £5,000. For example, a registrant who works 30 hours a week over a year at £6 per hour would earn about £9,000.

Thus, the earnings of most of those registrants who sustain employment are quite likely to exceed the cost that a relatively efficient Job Broker incurs in achieving a sustainment.

This analysis is quite misleading in at least one very important respect, however, because many NDDP registrants who worked would have worked even without the programme. Costs that result from the programme can only be offset by benefits that are generated by the programme – for example, increases in earnings or reductions in incapacity benefit payments that also result from the programme. In the next part of this report, we compare such benefits with our estimates of programme costs.

Part III – Cost-benefit analysis

5 Data and methods

Summary

This section contains information on:

- the cost and programme impact estimates that are used in the cost-benefit analysis (Section 5.1);
- how impacts were predicted beyond the months for which they were estimated (Section 5.2);
- procedures used to estimate the New Deal for Disabled People (NDDP) impacts that have not previously been estimated (Section 5.3);
- the discount rate used to compute the present values of NDDP benefits (Section 5.4).

5.1 Cost and benefit estimates

The purpose of the cost-benefit analysis is to determine whether the benefits from NDDP outweigh the programme's costs from a societal point of view and, thus, whether NDDP is economically efficient. The analysis also attempts to establish whether the programme improves the well-being of those who register in it and what the net effect of NDDP is on the Government's budget. Thus, the intent of the analysis is to provide information that is helpful in determining whether NDDP should continue to be funded and, if so, whether it should be modified.

To determine the relative size of NDDP's costs and benefits, the analysis, as previously indicated, relies heavily on estimates from the cost analysis (which are presented in Part II) and on estimates from the NDDP impact analysis conducted by Orr, Bell and Lam (2007). The monetary estimates have all been converted to 2005 pounds by using the UK Retail Prices Index for consumer prices so that they are comparable to one another. Because the monetary values presented in this part of the report have been adjusted for inflation, they differ from those reported in Part II of the report and in Orr, Bell and Lam (2007), which are not inflation adjusted. The monetary values all pertain to a typical or an average NDDP registrant.

Three alternative measures of the Government's cost of running NDDP are used in the cost-benefit analysis: (1) the lower-bound weighted estimate of total costs per registrant from the first row of Table 4.1; (2) the upper-bound weighted estimate of total costs per registrant from the first row of Table 4.1; and (3) the incentive payments the Government made to the Job Brokers between April 2002 and March 2003 plus the estimate of Jobcentre Plus's cost of administering NDDP over the same period. After adjustment to 2005 prices, these three values are £804, £1,052 and £1,062, respectively. As discussed at length in Part II, the lower-bound cost estimates are adjusted for the possibility that two of the Job Brokers overstated their costs in the data they provided us with and the upper-bound estimates are not adjusted for this possibility. The difference between each of the first two estimates and the third estimate provides two alternative measures of Job Broker profits per registrant.

Although the third measure provides the best available estimate of the cost the Government actually incurred in the past in operating NDDP, the other two measures are more accurate estimates of the cost to Job Brokers of operating the programme for a typical registrant and therefore, provide measures of the value of the resources required to operate NDDP. From the societal point of view, these are the appropriate estimates of costs because it does not matter whether the Government or individual Job Brokers bear these costs. What does matter is that resources that would otherwise be available for other purposes are used instead to operate the programme.

The first two measures also probably more closely approximate the costs that the Government will need to bear over the long-run. That is, Job Brokers that operate at a loss are unlikely to continue to operate that way over the long-run and the Government presumably will not permit Job Brokers to reap large profits over the long-run. Thus, the costs Job Brokers actually incur and Government incentive payments seem likely to tend to approximate one another over the long-run. As it turns out, measures (2) and (3) are virtually identical in value. This simply reflects the fact that the upper bound estimate of costs implies that Job Broker profits per registrant are near zero because Job Broker costs per registrant and Government incentive payments per registrant were approximately the same. Thus, the cost-benefit findings will be unaffected by whether measures (2) or (3) are used. NDDP is somewhat more likely to be found to be cost-beneficial if cost measure (1), which is our preferred measure, is used instead of either of the other two measures. However, although measure (1) is smaller than measures (2) and (3), the gap is not that large.

The key estimates from the impact analysis appear in Tables 5.1, 5.2 and 5.3. The impact estimates are reported separately for continuing claimants – that is, individuals who were already claiming one of the NDDP 'qualifying benefits' (see Part I) when NDDP was initiated – and for new (or returning) claimants. The tables contain separate impact estimates for two overlapping cohorts of registrants: those who registered between 1 July 2001 and 31 December 2002 ('the 24-month cohort') and those who registered between 1 July 2001 and 31 December 2001 ('the 36-month cohort'). As indicated by the tables, the 24-month cohort is much larger than the 36-month cohort, especially for new claimants. More importantly, perhaps, it is not limited to

individuals who registered during the first six months after the national extension of NDDP and thus, is less likely to be subject to various programme start-up issues. Thus, we rely on the impact estimates for the 24-month cohort in determining NDDP's benefits over the first two years after registration in the programme. However, because the 36-month cohort is confined to an earlier group of registrants than the 24-month cohort, it was possible to estimate programme impacts for them for an additional post-registration year. Hence, as explained later, the 36-month cohort provides information we use in determining how impacts change over the time since registration.

The first set of four estimates in Table 5.1 indicates NDDP's impacts on the proportion of registrants who received at least one of the following three benefits: Incapacity Benefits (IB), Income Support (IS) or Severe Disablement Allowance (SDA) during each of the 24 months. The second four estimates (which are shown in 2005 prices) pertain to NDDP's impacts on the total monthly receipts of the three types of benefits. For example, the 24-month cohort estimates for the ninth month following registration imply that the amount of IB, IS and SDA the average continuing customer who registered for NDDP received was nearly £67 less than it would have been in the absence of the programme and that the receipt of at least one of these three benefits by these persons was about ten percentage points lower. The latter result occurs because the findings from the impact analysis imply that 91 per cent of continuing customers who were registrants would have received IB, IS or SDA during the ninth month in the absence of NDDP, but, because of the programme, only 81 per cent were in receipt of at least one of these benefits. The 36-month cohort estimates for the ninth month for continuing customers are similar but a bit larger.

The consistently negative signs on the impacts shown in Table 5.1 imply, as anticipated, that NDDP reduced the amount of incapacity benefits registrants received and reduced the proportion of registrants that received these benefits at all. The impact estimates that are shown in Table 5.1 are all statistically significant at the one per cent level, except for the 36-month cohort estimates for new (or returning) registrants, which are based on only a small sample of registrants. The impacts for continuing claimants are usually larger than those for new claimants. The impacts for both continuing and new claimants appear to first grow and then begin to shrink after 20 or so months, especially for new claimants. The trends for the impacts on the total monthly receipts of IB, IS and SDA are also shown by the curves for the 24-month cohort (the alternating dash-dot lines) and for the 36-month cohort (the solid lines) in Figure 5.1 for continuing customers and in Figure 5.2 for new customers (the curves with the broken lines are discussed in Section 5.2).

Table 5.1 Estimated impacts of NDDP on IB/IS/SDA

	Impact on IB/IS/SDA benefit receipt				Impact on IB/IS/SDA benefit amount in 2005 prices			
	24-month cohort		36-month cohort		24-month cohort		36-month cohort	
Month after registration	Continuing claimants	New claimants	Continuing claimants	New claimants	Continuing claimants	New claimants	Continuing claimants	New claimants
1	-0.0051***	-0.0056***	-0.0074***	-0.0028	-14.87***	-7.97***	-15.97***	1.03
2	-0.0275***	-0.0257***	-0.0319***	-0.0314*	-29.39***	-14.52***	-31.45***	-4.00
3	-0.0475***	-0.0497***	-0.0596***	-0.0470*	-39.61***	-21.68***	-42.73***	-10.01
4	-0.0631***	-0.0742***	-0.0779***	-0.0633**	-46.85***	-27.00***	-49.48***	-18.67*
5	-0.0736***	-0.0900***	-0.0882***	-0.1000***	-52.36***	-31.92***	-56.39***	-25.02**
6	-0.0822***	-0.1004***	-0.0953***	-0.1026***	-56.12***	-33.31***	-58.65***	-22.30*
7	-0.0902***	-0.1040***	-0.1062***	-0.0843***	-59.77***	-35.05***	-62.44***	-30.97**
8	-0.0968***	-0.1074***	-0.1143***	-0.1123***	-63.69***	-37.42***	-67.43***	-35.58
9	-0.1008***	-0.1078***	-0.1160***	-0.1071***	-66.57***	-37.95***	-68.71***	-35.18
10	-0.1063***	-0.1099***	-0.1214***	-0.1313***	-68.87***	-39.01***	-71.67***	-38.55
11	-0.1113***	-0.1077***	-0.1249***	-0.1379***	-71.17***	-37.81***	-72.94***	-41.26
12	-0.1153***	-0.1062***	-0.1288***	-0.1595***	-73.34***	-40.97***	-76.44***	-44.44
13	-0.1222***	-0.1117***	-0.1357***	-0.1688***	-75.67***	-43.59***	-79.39***	-44.62
14	-0.1274***	-0.1171***	-0.1438***	-0.1628***	-78.30***	-46.87***	-81.70***	-42.28
15	-0.1317***	-0.1212***	-0.1468***	-0.1619***	-79.54***	-50.44***	-83.44***	-43.29
16	-0.1366***	-0.1267***	-0.1504***	-0.1492***	-80.30***	-51.82***	-83.81***	-40.38

Continued

Table 5.1 Continued

	Impact on IB/IS/SDA benefit receipt				Impact on IB/IS/SDA benefit amount in 2005 prices			
	24-month cohort		36-month cohort		24-month cohort		36-month cohort	
Month after registration	Continuing claimants	New claimants	Continuing claimants	New claimants	Continuing claimants	New claimants	Continuing claimants	New claimants
17	-0.1392***	-0.1280***	-0.1533***	-0.1453***	-81.03***	-53.88***	-85.94***	-43.49
18	-0.1421***	-0.1297***	-0.1554***	-0.1449***	-81.43***	-53.78***	-85.20***	-47.
19	-0.1461***	-0.1288***	-0.1586***	-0.1489***	-82.03***	-54.38***	-85.03***	-52.49
20	-0.1491***	-0.1298***	-0.1615***	-0.1478***	-82.91***	-55.08***	-87.54***	-55.45
21	-0.1510***	-0.1318***	-0.1652***	-0.1321***	-83.45***	-55.22***	-87.85***	-52.05
22	-0.1523***	-0.1295***	-0.1662***	-0.1287***	-83.85***	-53.97***	-88.78***	-49.17
23	-0.1550***	-0.1276***	-0.1693***	-0.1351***	-83.50***	-52.72***	-88.14***	-49.71
24	-0.1571***	-0.1297***	-0.1694***	-0.1471***	-83.64***	-53.04***	-89.26***	-52.43
25		-0.1700***	-0.1418***				-88.12***	-49.51
26		-0.1711***	-0.1386***				-87.21***	-44.20
27		-0.1725***	-0.1396***				-87.49***	-44.87
28		-0.1734***	-0.1296***				-86.31***	-40.73
29		-0.1768***	-0.1424***				-86.78***	-43.25
30		-0.1795***	-0.1404***				-85.88***	-44.92
31		-0.1785***	-0.1284***				-84.86***	-44.85

Continued

Table 5.1 Continued

	Impact on IB/IS/SDA benefit receipt				Impact on IB/IS/SDA benefit amount in 2005 prices			
	24-month cohort		36-month cohort		24-month cohort		36-month cohort	
Month after registration	Continuing claimants	New claimants	Continuing claimants	New claimants	Continuing claimants	New claimants	Continuing claimants	New claimants
32			-0.1782***	-0.1316***			-85.32***	-41.00
33			-0.1763***	-0.1208***			-84.53***	-39.97
34			-0.1768***	-0.1280***			-84.16***	-36.84**
35			-0.1788***	-0.1194***			-83.15***	-37.33*
36			-0.1788***	-0.1105***			-83.61***	-35.12**
Sample size:								
Registrants	23,696	5,585	5,635	295	23,696	5,585	5,635	295
Non registrants	211,782	49,354	48,607	3,164	211,782	49,354	48,607	3,164

Source: Regression estimates provided by Orr, Bell and Lam.

*Statistically significant at the 10 per cent level.

** Statistically significant at the 5 per cent level.

*** Statistically significant at the 1 per cent level.

Figure 5.1 Continuing claimants impacts on IB/IS/SDA benefits over time

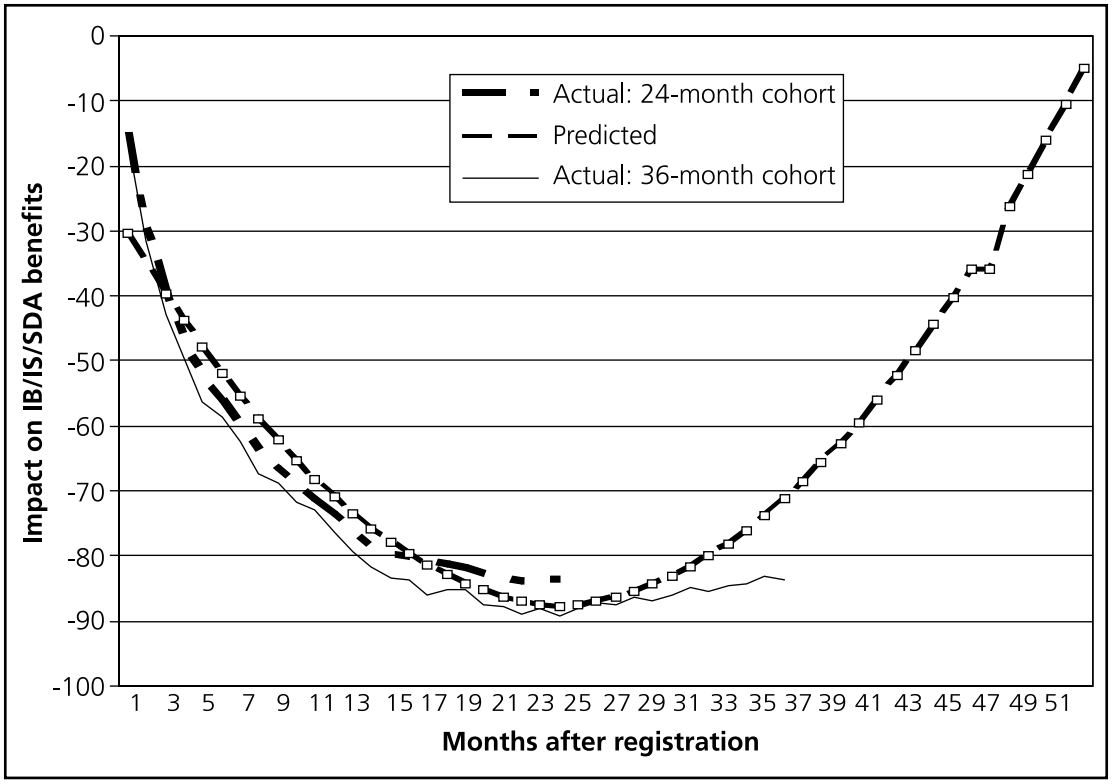


Figure 5.2 New claimants impacts on IB/IS/SDA benefits over time

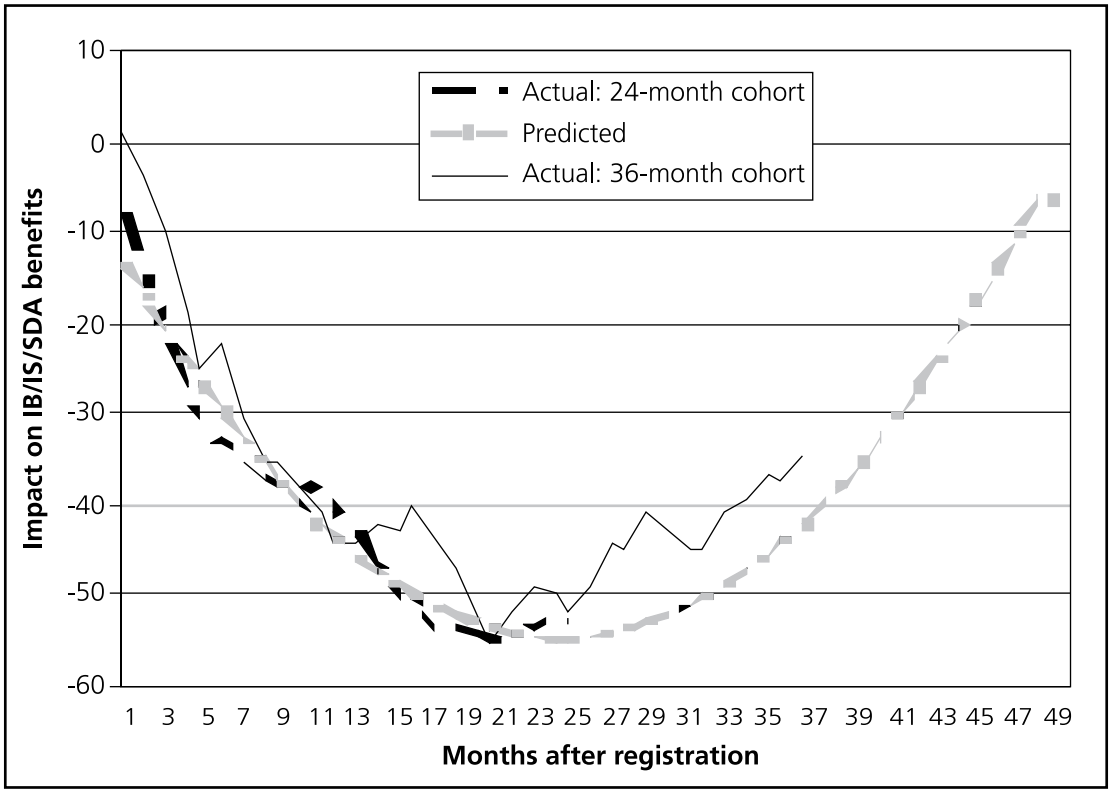


Table 5.2 is designed similarly to Table 5.1, but pertains to Jobseeker's Allowance (JSA), rather than IB, IS, and SDA. The impacts on the receipt of JSA and on the amount of JSA received are much smaller than the combined impact on IB, IS, and SDA, usually well under one percentage point and £5, respectively. Indeed, they are sometimes so small that they are not statistically significant, even for the relatively large sample available for the 24-month cohort. This particularly occurs towards the end of the 24 month estimation period. In further contrast to the impact estimates on IB, IS, and SDA, they are usually positive in sign. In those relatively rare instances when they are negative, they statistically differ from zero only once, and then only marginally. The positive impacts of NDDP on JSA presumably results because the programme causes registrants to become more active in the labour market and, as a result, some of them substitute JSA for incapacity benefits when they are not employed or are employed for fewer than 16 hours a week. Given the small size of the impacts, however, this substitution is minimal. With the possible exception of the impact on the receipt of JSA by continuing claimants, the JSA impacts appear to increase over the first few months after registration and then decline.

Table 5.2 Estimated Impacts of NDDP on Jobseeker's Allowance

	Impact on JSA benefit receipt				Impact on JSA benefit amount in 2005 prices			
	24-month cohort		36-month cohort		24-month cohort		36-month cohort	
Month after registration	Continuing claimants	New claimants	Continuing claimants	New claimants	Continuing claimants	New claimants	Continuing claimants	New claimants
1	0.0015***	0.0056***	0.0010	0.0140*	0.66***	0.96*	0.73**	3.14
2	0.0026***	0.0097***	0.0030**	0.0186	1.42***	2.26***	1.57***	8.68*
3	0.0030***	0.0186***	0.0018	0.0092	1.79***	3.81***	2.17***	9.76*
4	0.0048***	0.0198***	0.0039**	0.0235	2.10***	4.54***	2.52***	12.21**
5	0.0042***	0.0249***	0.0021	0.0085	2.18***	5.03***	2.89***	12.99*
6	0.0042***	0.0178***	0.0013	0.0180	1.89***	3.93***	2.84***	8.67
7	0.0038***	0.0135***	0.0031	0.0168	1.56***	2.58**	2.68***	4.82
8	0.0037***	0.0106***	0.0023	0.0154	1.53***	1.34	2.71***	5.91
9	0.0023***	0.0070*	0.0014	0.0307*	1.34***	0.71	2.47***	10.39
10	0.0034***	0.0060*	0.0012	0.0299*	1.25***	0.71	2.25***	8.48
11	0.0036***	0.0090**	0.0023	0.0189	1.14***	1.63	1.63**	8.31
12	0.0043***	0.0076**	0.0057***	0.0163	1.05***	1.84	1.62**	4.60
13	0.0048***	0.0071**	0.0066***	0.0205	1.33***	1.33	2.30***	6.23
14	0.0057***	0.0062*	0.0070***	0.0171	1.66***	1.43	2.71***	7.07
15	0.0045***	0.0039	0.0032*	0.0146	1.41***	0.68	2.26***	7.43
16	0.0049***	0.0060*	0.0030	0.0275	1.18***	0.30	2.10**	8.10

Continued

Table 5.2 Continued

	Impact on JSA benefit receipt				Impact on JSA benefit amount in 2005 prices			
	24-month cohort		36-month cohort		24-month cohort		36-month cohort	
Month after registration	Continuing claimants	New claimants	Continuing claimants	New claimants	Continuing claimants	New claimants	Continuing claimants	New claimants
17	0.0037***	0.0058*	0.0030	0.0311*	0.97***	0.21	2.12***	9.67
18	0.0047***	0.0037	0.0048**	0.0042	0.84**	-0.35	2.21***	6.22
19	0.0038***	0.0040	0.0033*	0.0065	0.39	-0.36	1.04	4.00
20	0.0036***	0.0012	0.0042**	-0.0091	0.53*	-1.01*	1.36*	-0.16
21	0.0037***	-0.0008	0.0027	-0.0152	0.60	-1.83	0.75	-1.73
22	0.0044***	0.0013	0.0039**	-0.0045	0.48	-1.16	0.47	1.24
23	0.0040***	0.0036	0.0032*	0.0058	0.58*	-0.48	0.63	0.42
24	0.0049***	0.0021	0.0048**	0.0009	0.69**	-0.90	0.93	-0.69
25	0.0034*	-0.0052			0.59	-0.73		
26	0.0028	-0.0046			0.05	-3.48		
27	0.0026	0.0068			0.14	-1.58		
28	0.0028	-0.0040			0.83	-1.80		
29	0.0025	-0.0026			0.43	-2.70		
30	0.0034*	-0.0019			0.35	-4.27		
31	0.0034*	0.0148			0.51	-2.66		

Continued

Table 5.2 Continued

	Impact on JSA benefit receipt				Impact on JSA benefit amount in 2005 prices			
	24-month cohort		36-month cohort		24-month cohort		36-month cohort	
Month after registration	Continuing claimants	New claimants	Continuing claimants	New claimants	Continuing claimants	New claimants	Continuing claimants	New claimants
32			0.0007	0.0117			-0.12	-0.66
33			0.0014	0.0084			-0.17	-1.15
34			0.0016	0.0056			-0.15	-0.82
35			0.0019	-0.0018			-0.21	1.41
36			0.0039**	-0.0101			0.08	0.49
Sample size:								
Registrants	23,696	5,585	5,635	295	23,696	5,585	5,635	295
Non registrants	211,782	49,354	48,607	3,164	211,782	49,354	48,607	3,164

Source: Source: Regression estimates provided by Orr, Bell and Lam.

*Statistically significant at the 10 percent level.

** Statistically significant at the 5 percent level.

*** Statistically significant at the 1 percent level.

Table 5.3 pertains to NDDP's impacts on the proportion of registrants who received earnings (that is, on the proportion who were employed). Estimates of NDDP's impacts on monthly earnings could not be provided by Orr, Bell and Lam, who did not have data on earnings, but, for purposes of the cost-benefit analysis, are instead inferred on the basis of the estimates of NDDP's impacts on employment. The method we use to do this is described later.

Table 5.3 Estimated impacts of NDDP on employment

	24-month cohort		36-month cohort	
Month after registration	**Continuing claimants**	**New claimants**	**Continuing claimants**	**New claimants**
1	0.0331 ***	0.0333 ***	0.0239 ***	0.0039
2	0.0451 ***	0.0419 ***	0.0317 ***	0.0430 **
3	0.0544 ***	0.0448 ***	0.0389 ***	0.0507 **
4	0.0591 ***	0.0487 ***	0.0402 ***	0.0673 ***
5	0.0632 ***	0.0428 ***	0.0440 ***	0.0515 **
6	0.0694 ***	0.0378 ***	0.0532 ***	0.0604 **
7	0.0726 ***	0.0447 ***	0.0573 ***	0.0567 **
8	0.0760 ***	0.0471 ***	0.0612 ***	0.0639 ***
9	0.0787 ***	0.0471 ***	0.0641 ***	0.0711 ***
10	0.0815 ***	0.0502 ***	0.0644 ***	0.0777 ***
11	0.0830 ***	0.0544 ***	0.0639 ***	0.0687 ***
12	0.0862 ***	0.0599 ***	0.0662 ***	0.0767 ***
13	0.0883 ***	0.0605 ***	0.0654 ***	0.0735 ***
14	0.0899 ***	0.0598 ***	0.0650 ***	0.0687 ***
15	0.0920 ***	0.0617 ***	0.0683 ***	0.0642 ***
16	0.0942 ***	0.0615 ***	0.0744 ***	0.0895 ***
17	0.0962 ***	0.0617 ***	0.0787 ***	0.0895 ***
18	0.0983 ***	0.0627 ***	0.0826 ***	0.0860 ***
19	0.1001 ***	0.0645 ***	0.0894 ***	0.0977 ***
20	0.1026 ***	0.0693 ***	0.0971 ***	0.1236 ***
21	0.1049 ***	0.0726 ***	0.1013 ***	0.1116 ***
22	0.1058 ***	0.0736 ***	0.1029 ***	0.1153 ***
23	0.1074 ***	0.0754 ***	0.1032 ***	0.1167 ***

Continued

Table 5.3 Continued

	24-month cohort		36-month cohort	
Month after registration	**Continuing claimants**	**New claimants**	**Continuing claimants**	**New claimants**
24	0.1082 ***	0.0742 ***	0.1036 ***	0.1106 ***
25			0.1031 ***	0.1028 ***
26			0.1030 ***	0.0953 ***
27			0.1024 ***	0.0999 ***
28			0.1045 ***	0.0822 ***
29			0.1062 ***	0.0992 ***
30			0.1056 ***	0.0977 ***
31			0.1054 ***	0.0896 ***
32			0.1068 ***	0.0934 ***
33			0.1101 ***	0.0848 ***
34			0.1108 ***	0.0820 ***
35			0.1101 ***	0.0748 ***
36			0.1115 ***	0.0755 ***
Sample size:				
Registrants	23,696	5,585	5,635	295
Non registrants	211,782	49,354	48,607	3,164

Source: Source: Regression estimates provided by Orr, Bell and Lam.

** Statistically significant at the 5 percent level.

*** Statistically significant at the 1 percent level.

The consistently positive values of the impact estimates on employment indicate that NDDP increased the fraction of registrants that was employed. For example, employment for continuing claimants in the 24th month after registration was 10 or 11 percentage points higher for registrants than for non-registrants. With only a few minor exceptions for new claimants in the 36-month cohort, the impact estimates that are shown in Table 5.3 are all statistically significant at the one per cent level. As indicated by the table and also by Figures 5.3 and 5.4, which are analogous to Figures 5.1 and 5.2, the impacts for continuing claimants appear to grow over the 36 months for which they are available, albeit at a diminishing pace, while those for new claimants first grow and then seem to shrink during the third year after registration (the broken lines for predicted impacts that appear in the figures are discussed in Section 5.2).

Figure 5.3 Continuing claimants impacts on employment over time

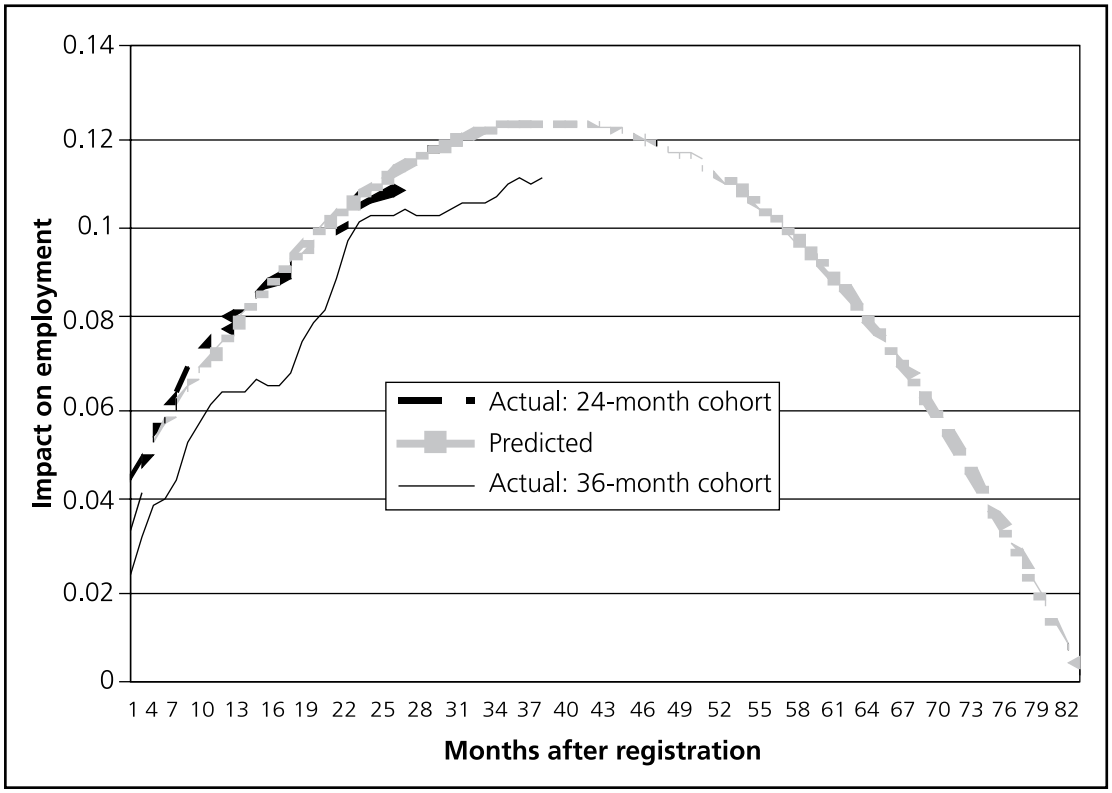
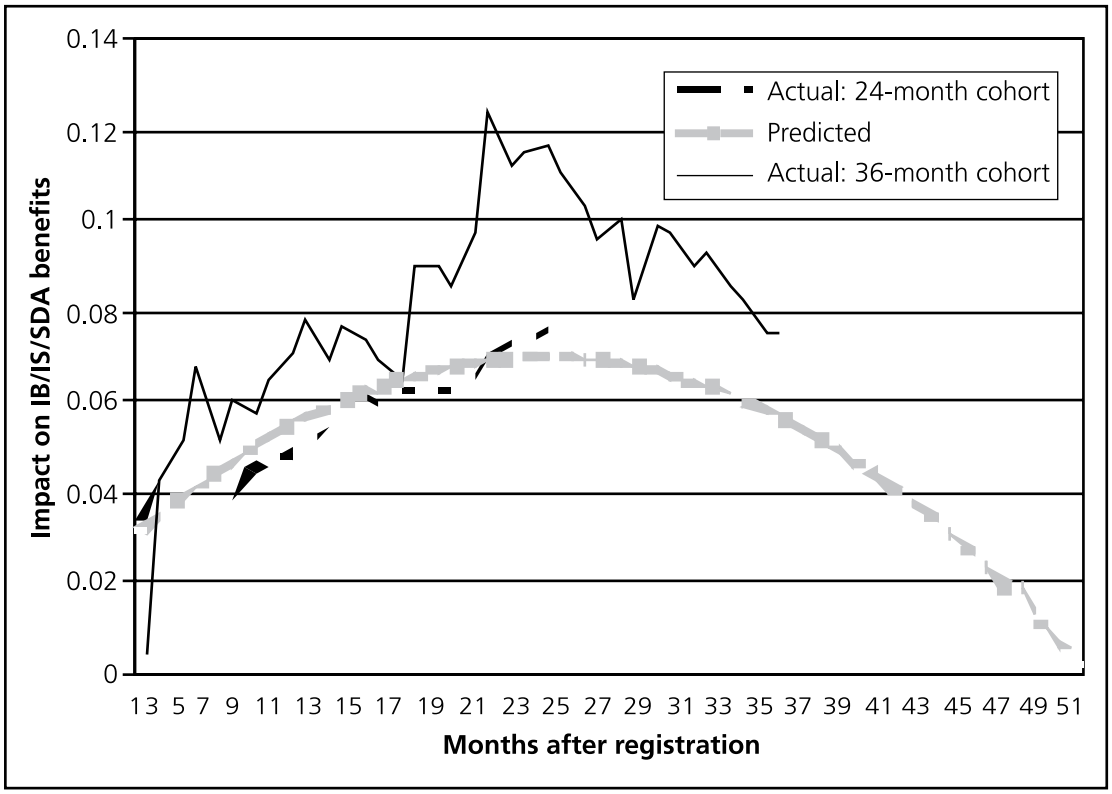


Figure 5.4 New claimants impacts on employment over time



A comparison of Table 5.3 with Table 5.1 indicates that NDDP's impact on the percentage of claimants who are employed is smaller than its impact on the percentage in receipt of IB, IS or SDA. One plausible explanation for this is that NDDP increased the weekly hours of some registrants who would have worked in the absence of NDDP, but fewer than 16 hours per week, to above this threshold, and, as a consequence, they no longer qualified for incapacity benefits. Unfortunately, data were not available to estimate NDDP's impact on the weekly hours of registrants who were employed. It is also possible that NDDP caused some registrants to leave the incapacity benefit rolls for destinations other than jobs (e.g. for other benefit programmes) or that some persons who did initially enter employment as a result of participating in NDDP later became unemployed but did not return to the incapacity benefit rolls.

5.2 Predicting future impacts

It is implausible that the impacts of NDDP suddenly end 24 or 36 months after registration, although those are all the months for which direct estimates of these impacts are available for the two cohorts of registrants. Indeed, Tables 5.1 and 5.3 and Figures 5.1 to 5.4 suggest that the impacts on incapacity benefits and employment are usually still appreciable at 24 months and even at 36 months. For purposes of the cost-benefit analysis, it is therefore very important to predict impacts during the months for which they are not directly available and then incorporate these predicted impacts into the analysis.

The approach we take to predicting impacts is to use the 36 months of available impact estimates to estimate regression equations, with the impact estimates as the dependent variable and a time trend variable as the explanatory variable. Because we have more confidence in the impact estimates for the 24-month cohort than those for the 36-month cohort, in the cost-benefit analysis we rely on directly estimated impacts from the former for valuing benefits during the first 24 months after registration and on predictions from the regression equations to determine impacts for all the months thereafter.

To illustrate the approach we begin with the impacts on IB/IS/SDA listed in Table 5.1. We estimated the predictive regressions for these benefits with two alternative specifications for the time trend variable: a quadratic specification (i.e. months since registration plus months squared) and a logarithmic specification (i.e. the natural logarithm of months since registration). The quadratic specification posits that these impacts first grow in absolute magnitude, but at an increasingly slow rate and then begin to shrink, eventually altogether disappearing (thus, the time profile resembles a U), while the logarithmic specification presumes that the impacts continue to grow in absolute value but at a diminishing rate, eventually barely changing at all. Both specifications are consistent with the (limited) information provided in Table 5.1 and Figure 5.1 for continuing claimants about how the programme impacts on incapacity benefits change over time. The quadratic specification seems more consistent with the data in Table 5.2 and Figure 5.2 for new claimants.

The regression estimates that are based on the two alternative specifications appear in Table 5.4. The regressions are estimated for the 24 impacts estimates obtained from the 24-month cohort (see the top panel in the table), and then again for 36 impact estimates (see the bottom panel), with those for the first 24 months after registration obtained from the 24-month cohort and those for the last 12 months acquired from the 36 month cohort. In estimating the regressions for the combined cohorts, we attempt to take account of the fact that impact estimates from two different cohorts that are spliced together may systematically differ from one another. We do this by including a dummy variable that equals zero for impact estimates from the 24-month cohort and has a value of one for impact estimates from the 36-month cohort.

Because the impacts on the receipt and the amount of IB, IS, and SDA benefits are negative, the consistently negative coefficients on the number of months after registration and on the natural logarithm of the number of months after registration, imply that the size of the effects of NDDP on the amount of benefits received and on whether benefits are received grow over time. The consistently positive signs on the square of the number of months after registration in the quadratic regressions imply that these effects grow at a diminishing rate and eventually begin to shrink. The predictions that are based on the quadratic specification are illustrated by the broken line curves in Figures 5.1 and 5.2.

Table 5.4 Unweighted OLS regression estimates of the changes in estimated impacts on IB/IS/SDA over time

	Impact on JSA benefit receipt				Impact on JSA benefit amount in 2005 prices			
	24-month cohort		36-month cohort		24-month cohort		36-month cohort	
Month after registration	Continuing claimants		New claimants		Continuing claimants		New claimants	
				24-month cohort				
Constant	-18.123	-15.530	-8.726	-4.765	-.00934	.00575	-.01694	-.01422
	(2.117)	(1.058)	(1.766)	(1.497)	(.004)	(.002)	(.008)	(.005)
	[.000]	[.000]	[.000]	[.004]	[.027]	[.015]	[.036]	[.010]
Month after registration	-6.836		-4.147		-.01247		-.01263	
	(.390)		(.326)		(.001)		(.001)	
	[.000]		[.000]		[.000]		[.000]	
Sq of Month after reg.	.177		.095		.00027		.00035	
	(.015)		(.013)		(000)		(.000)	
	[.000]		[.000]		[.000]		[.000]	
Ln(Month after reg.)		-22.735		-15.972		-0.05051		-.03941
		(.436)		(.618)		(.001)		(.002)
		[.000]		[.000]		[.000]		[.000]

Continued

Table 5.4 Continued

	Impact on JSA benefit receipt				Impact on JSA benefit amount in 2005 prices			
	24-month cohort		36-month cohort		24-month cohort		36-month cohort	
Month after registration	Continuing claimants		New claimants		Continuing claimants		New claimants	
Adjusted R2	.972	.992	.961	.967	.981	.993	.887	.940
F-value	400.076	2712.934	2016.435	667.99	581.888	3131.311	91.520	360.209
Number of observations	24	24	24	24	24	24	24	24
Predictions								
Month of impact peak	22	NA	21	NA	24	NA	22	NA
Month impact ends	41	NA	45	NA	46	NA	37	NA
				Combined 24-month/36-month cohorts				
Constant	-25.589	-16.328	-10.072	-5.743	-.01962	.00514	-.02961	-.01669
	(2.218)	(1.722)	(1.335)	(2.383)	(.003)	(.002)	(.006)	(.006)
	[.000]	[.000]	[.000]	[.021]	[.000]	[.026]	[.000]	[.014]
Month after registration	-4.963		-3.811		-.00989		-.00944	
	(.289)		(.174)		(.000)		(.001)	
	[.000]		[.000]		[.000]		[.000]	

Continued

Table 5.4 Continued

	Impact on JSA benefit receipt				Impact on JSA benefit amount in 2005 prices			
	24-month cohort		36-month cohort		24-month cohort		36-month cohort	
Month after registration	Continuing claimants		New claimants		Continuing claimants		New claimants	
Sq of Month after reg.	.099		.081		.00016		.00021	
	(.009)		(.005)		(.000)		(.000)	
	[.000]		[.000]		[.000]		[.000]	
Ln(Month after reg.)		-22.385		-15.522		-.05025		-.03832
		(.710)		(.983)		(.001)		(.003)
		[.000]		[.000]		[.000]		[.000]
Months 25-36 = 1	-1.870	7.072	8.361	16.860	-.00993	-.00962	-.01394	.01650
	(3.234)	(1.286)	(1.947)	(1.779)	(.005)	(.002)	(.009)	(.005)
	[.587]	[.000]	[.000]	[.000]	[.060]	[.000]	[.113]	[.002]
Adjusted R2	.944	.974	.949	.876	.980	.994	.870	.789
F-value	197.959	660.364	219.501	124.859	574.201	2864.188	79.210	128.641
Number of observations	36	36	36	36	36	36	36	36
Predictions								
Month of impact peak	25		NA	21	NA	31	NA	22
NA								
Month impact ends	54	NA	48	NA	63	NA	47	NA

*Standard errors appear in parentheses, ( ), and p-values in brackets, [ ]

NA: not applicable.

Both the quadratic and the logarithmic specifications fit the data very well. Most of the regressions account for over 90 per cent of the variance of the impact estimates; and, with the exception of some of the coefficients on the month 25-36 dummy variable, all of the estimated regression coefficients are highly statistically significant at conventional levels. Overall, the fit for the impact estimates for continuing claimants is somewhat better than that for new claimants, the fit for the regressions based on the 24-month cohort tends to be marginally superior to that for the regressions relying on the combined cohort, and the fit for the logarithmic specification is more often better than that for the quadratic specification. However, all the regression equations appear highly satisfactory for predictive purposes.

The fact that the regressions that are based on the 24-month cohort perform a little better than those using the combined cohorts is not surprising given the somewhat erratic time trends in impacts estimated with the 36-month cohort that is apparent in the figures presented earlier. Nonetheless, we prefer using the regressions based on combined cohorts for predictive purposes because, by incorporating an additional year of impact estimates, the resulting predictions are based on greater information about time trends. In using these regressions, we set the 25-36 month dummy variable equal to zero, thereby, in effect, treating all the impact estimates **as if** they are based on the 24-month cohort.

Those combined cohort regressions that use the quadratic specification provide estimates for new claimants that are somewhat superior to those that rely on the logarithmic specification, while the opposite is true for continuing claimants. Although the choice between the two alternative predictive regression specifications is not obvious, for reasons discussed below, we prefer the quadratic specification and use it for computing the central cost-benefit estimates that we present later. However, in presenting these estimates, we also discuss whether our conclusions are sensitive to this choice.

The predictions that are based on the combined cohorts and the quadratic specification are displayed by the broken line in Figures 5.1 to 5.4. A comparison of the predictions with the impact estimates produced by the 24-month cohort suggests that they mimic these estimates quite well.

One reason for our preference for the quadratic specification is that it is conservative in the sense that, unlike the logarithmic specification, programme impacts are predicted to diminish in absolute value and eventually fall to zero (the U-shape). For example, the predictions in last two rows of each panel in Table 5.4 imply that programme impacts on the receipt and the amount of IB, IS, and SDA payments first increase but begin to decline after around two years and end in four or five years.[27] If programme

[27] Taken literally, the quadratic function implies that NDDP would eventually cause the receipt and the amount of IB, IS and SDA to increase, rather than decrease. This is obviously implausible. Thus, in projecting programme throughout the cost-benefit analysis, we assume that there are no further programme effects once impacts reach zero.

net benefits (i.e. programme benefits less programme costs) are found to be positive on the basis of the quadratic specification, then they would be even more positive if they were based on the logarithmic specification instead. This is illustrated by a comparison of the actual time trend in impacts on incapacity benefits received by continuing claimants that appears in Figure 5.1 with the time trend implied by the quadratic specification. Such a comparison suggests that the predicted decline in impacts may be greater than the actual decline for continuing claimants and, hence, that the predictions may understate future impacts. However, a similar comparison of the actual and predicted time trend in impacts in Figure 5.2 suggests that the predicted decline in impacts may be fairly accurate for new claimants.

Perhaps a more important reason for our preference for the quadratic specification is that it seems more plausible than the logarithmic specification, even for continuing claimants. First, most Job Brokers are more focused on getting registrants into jobs than on increasing their human capital. It seems likely that some NDDP registrants that Job Brokers help place in jobs would have eventually found jobs without the help of Job Brokers, but not as quickly. If so, the impact of NDDP on employment and benefit payments would eventually diminish.

Second, the health conditions and impairments of some registrants who obtained jobs and left the benefit rolls as a result of the NDDP programme may become more severe over time, causing them to leave employment eventually and return to benefits. If so, programme impacts will again diminish over time.

Third, the U-shape that is implied by the quadratic specifications is generally consistent with other evidence. For example, in a meta-analysis that included 27 random assignment evaluations of over 70 US mandatory welfare-to-work programmes targeted at recipients of Aid to Families with Dependent Children, which was previously the US's major cash welfare programme, found that programme impacts on benefit amounts, benefit receipt, and employment first increased but began to decline after two or three years and ended after five to seven years (Greenberg, Cebulla, and Bouchet 2005). An earlier meta-analysis by some of the same researchers obtained very similar results for impacts on earnings (Greenberg *et al.* 2004), as did a meta-analysis of US Government-funded training programmes (Greenberg, Michalopoulous, and Robins 2004).[28] The findings for NDDP that are based on the quadratic specification appear quite consistent with those from the meta-analysis,

[28] The one exception to this time-tend pattern was for adult women in the Greenberg, Michalopoulous, and Robins (2004) study. They found that earnings impacts for adult women who participated in training programs first increased for several years and then remain undiminished. However, earnings impacts for the other two groups they analysed, adult males and youth, did seem to follow the pattern. Moreover, except for adult women in the Greenberg, Michalopoulous, and Robins (2004) study, the impact peak and end of the impacts occurred at roughly the same points in time in all three studies.

although NDDP's impacts on the receipt and the amount of incapacity benefits appear to end somewhat sooner.[29] The findings in the Greenberg, Cebulla, and Bouchet 2005 study are especially supportive of the existence of a U-shaped time pattern because a number of the evaluations included in their meta-analysis measured impacts for three, four, or even five years.

Table 5.5 presents regression estimates that can be used to predict how NDDP's impacts on JSA changes over time. The time trend variable in the reported regressions is specified as a simple linear term because this specification seemed to fit the data considerably better than either the quadratic or the logarithmic specifications used in estimating the predictive regressions for IB, IS, and SDA benefits. Even so, however, the statistical fit for the regressions presented in Table 5.5 is not nearly as good as the fit for regressions reported in Table 5.4. This is probably because the impacts themselves are much smaller and change more erratically over time.

The regression coefficient on the number of months variable is negative in six of the eight regressions reported in Table 5.5, implying that the NDDP's impacts on JSA shrink over time and fall to zero within two or three years after registration. For purposes of the cost-benefit analysis, we assume that these impacts never become negative, both because all but one of the estimated negative impacts do not significantly differ from zero (see Table 5.2) and because there is little reason to expect that NDDP would cause the receipt of JSA to fall.

The regression coefficients on the number of months after registration variable are positive but very small in the regressions for NDDP's impacts on the receipt of JSA by continuing claimants, implying that these impacts increase very slowly over time. For example, the first column of Table 5.2 indicates that NDDP caused the percentage of registrants who are continuing customers and receive JSA to increase by about a half of a percentage point in month 24. The regression predicts that the size of this impact would rise by one-tenth of a percentage point over the following two years. It seems highly unlikely that NDDP's effect on the fraction of continuing claimants who receive JSA would continue to be sustained forever. After all, as the bottom row of Table 5.5 indicates, the impact of NDDP on average JSA benefit levels for this group is predicted to reach zero in 34 months after registration. For purposes of the cost-benefit analysis, we arbitrarily assume that NDDP's impact on the receipt of JSA

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[29] It is important to recognise, however, that these meta-analyses pertain to the 'average' programme in the sample of all those examined. Individual programmes may have somewhat different patterns. For example, Knight *et al.* 2006) found that the impacts of the New Deal for Lone Parents remained substantial after four years, although they had begun to diminish by that time, although only slightly in most instances. Dolton and O'Neill (2002) found that Restart still had substantial impacts on the unemployment rates of males (but not females) five years after initial participation in the programme, although there is again some indication that they had begun to diminish by that time.

by continuing claimants would disappear after ten years. As will be seen later, this impact is so small, that the specific assumption that is made about the end point has only a trivial effect on the results of the analysis.

Table 5.6 presents regression estimates that can be used to predict how NDDP's impacts on employment changes over time. As in the case of the impacts on IB/IS/SDA, we estimated the predictive regressions for employment with two alternative specifications for the time trend variable: a quadratic specification and a logarithmic specification. In estimating the regressions for the combined cohorts, we again adjust for the fact that two separate time-series are spliced together by including a dummy variable that equals zero for impact estimates from the 24-month cohort and one for impact estimates from the 36-month cohort. The fact that the coefficients on this dummy are negative for continuing claimants and positive for new claimants, and highly statistically significant for both groups, suggests that it probably mostly captures systematic differences between the time series from the 24-month and 36-month cohorts, rather than time trends.

The quadratic specification fits the data at least as well as the logarithmic specification and in some instances better. All of the regressions using this specification account for well over 90 per cent of the variance of the impact estimates and, with one important exception, all of the estimated regression coefficients are highly statistically significant at conventional levels. The exception is the estimated coefficient on the square of the number of months after registration in the regression for new claimants that relies on impacts from the 24-month cohort. This coefficient is so imprecisely estimated that its true value could be either positive or negative. However, we do not use this regression for predictive purposes. For the reasons discussed earlier, we rely instead on the regression equations that are based on the combined 24-month/36-month cohorts and on the quadratic specification. These regressions imply that positive impacts on the employment of continuing registrants continue for over six years and those for new claimants persist for over four years.

Table 5.5 Unweighted OLS regression estimates of the changes in Jobseeker's Allowance over time

	24 Month Cohort				Combined 24 Month/36 Month Cohorts			
	JSA benefit amount		JSA benefit receipt		JSA benefit amount		JSA benefit receipt	
Explanatory variable	**Continuing claimants**	**New claimants**	**Continuing claimants**	**New claimants**	**Continuing claimants**	**New claimants**	**Continuing claimants**	**New claimants**
Constant	.1.859	3.829	.00315	.01679	1.865	3.174	.00334	.01542
	(.156)	(.445)	(.00079)	(.00183)	(.137)	(.597)	(.000)	(.002)
	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]
Month after registration	-.054	-.216	.00006	-.00070	-.054	-.163	.00005	-.00059
	(.011)	(.031)	(.00002)	(.00013)	(.009)	(.041)	(.000)	(.000)
	[.000]	[.000]	[.021]	[.000]	[.000]	[.000]	[.076]	[.001]
Months 25-36 = 1					-.025	.310	-.00222	.003888
					(.209)	(.907)	(.001)	(.004)
					[.904]	[.735]	[.000]	[.299]
Adjusted R2	.500	.671	.185	.553	.739	.527	.364	.366
F-value	24.034	47.959	6.206	29.465	50.412	20.482	11.001	11.110
Number of observations	24	24	24	24	36	36	36	36
Predictions								
Month impact ends	34	17	?	24	34	17	?	26

*Standard errors appear in parentheses, ( ), and p-values in brackets, [ ]

NA: not applicable.

Table 5.6 Unweighted OLS regression estimates of the changes in estimated impacts on employment over time

	24 Month Cohort				Combined 24 Month/36 Month Cohorts			
Explanatory variable	**Continuing claimants**		**New claimants**		**Continuing claimants**		**New claimants**	
Constant	.03618	.02695	.03609	.02626	.04042	.02693	.02744	.02800
	(.002)	(.002)	(.002)	(.003)	(.002)	(.001)	(.003)	(.005)
	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]
Month after registration	.00552		.00150		.00446		.00367	
	(.000)		(.000)		(.000)		(.000)	
	[.000]		[.001]		[.000]		[.000]	
Sq of Month after reg.	-.00011		.00001		-.00006		-.00008	
	(.000)		(.000)		(.000)		(.000)	
	[.000]		[.673]		[.000]		[.000]	
Ln(Month after reg.)		.02452		.01314		.02453		.01238
		(.001)		(.001)		(.001)		(.002)
		[.000]		[.000]		[.000]		[.000]
Months 25-36 = 1					-.00873	-.00399	.02917	.01954
					(.002)	(.001)	(.004)	(.004)
					[.001]	[.000]	[.000]	[.000]

Continued

Table 5.6 Continued

Explanatory variable	24 Month Cohort				Combined 24 Month/36 Month Cohorts			
	Continuing claimants		New claimants		Continuing claimants		New claimants	
Adjusted R2	.981	.985	.926	.795	.977	.989	.918	.840
F-value	582.721	1501.695	145.597	84.829	498.884	1525.504	131.777	92.807
Number of observations	24	24	24	24	36	36	36	36
Predictions								
Month of impact peak	24	NA	?	NA	34	NA	23	NA
Month impact ends	56	NA	?	NA	76	NA	52	NA

*Standard errors appear in parentheses, ( ), and p-values in brackets, [ ]

NA: not applicable.

5.3 Estimating additional impacts

As previously discussed, the NDDP impact study provides impact estimates for five monthly outcomes: the amount of IB, IS and SDA benefits that NDDP registrants received; whether registrants received benefits from at least one of these three programmes; the amount of JSA that was received; whether registrants received JSA benefits; and whether NDDP registrants were employed. Other impacts that result from NDDP – for example, increases in earnings; increases in Government tax receipts and National Insurance contributions; changes in benefit payments other than IB, IS, SDA and JSA (e.g. the Working Tax Credit, Council Tax Benefit and Housing Benefit); and decreases in the costs of administrating benefit programmes – must be inferred from the five impacts that have been estimated.

To illustrate how such inferences can be made, we begin by describing how we compute the savings in the cost of administering IB, IS, SDA that resulted because NDDP reduced the proportion of registrants in receipt of benefits under these three benefit programmes. The first two columns of Table 5.1, which rely of the 24-month cohort, provide estimates of NDDP's impact on the proportion of registrants who received IB, IS or SDA during each of 24 months. For example, the estimate in the first column for continuing claimants implies that during the ninth month after registration about one of every ten registrants who would have otherwise received IB, IS or SDA benefits did not do so as a result of having registered for NDDP. Stated somewhat differently, the estimate implies that, on average – that is, averaged over both registrants who left the benefit rolls **as a result of NDDP** and registrants whose benefit status was unaffected by NDDP – continuing claimants were off-benefits for 10 per cent of the ninth post-registration month due to their participation in NDDP. Hence, the saving in administrating IB, IS or SDA that resulted from NDDP during the ninth month after registration is simply one-tenth of the monthly cost of administering these programmes.

In the 24-month cohort that Orr, Bell, and Lam used to estimate the impacts of NDDP on the receipt of benefits, 91.9 per cent of the observations received IB at registration, 38.4 received IS, and 7.3 per cent received SDA (correspondence with Steve Bell on 20 March 2006). These three figures exceed 100 per cent because many NDDP registrants who received IB or SDA at registration also received IS. According to estimates provided by DWP, the annual cost of administering IB is £24.12 and the annual cost of administering IS is £39.50, or £2.01 and £3.29 per month, respectively. Similar estimates are not available for SDA but it seems reasonable to assume that the cost of administering SDA and IB are similar.[30] Given this assumption,

[30] Because so few NDDP registrants received benefits under SDA, the findings from the cost-benefit analysis are little affected by this assumption.

and also assuming that each of the three benefit programmes engender separate administrative costs,[31] the savings to the Government in administrative costs for each month a typical registrant is off benefits is about £3.26 ((.919 x £2.01) + (.073 x £2.01) + (.384 x £3.29)). Thus, during the ninth month after registration, the Government saved about £0.34 (.103 x £3.26) in administering incapacity benefits for the average NDDP registrant as a result of the programme.

For purposes of the cost-benefit analysis, these administrative savings were similarly estimated for each of the other 23 months for which NDDP's impact on the receipt of IB, IS or SDA was directly estimated for continuing claimants and for each of the 23 additional months for which the quadratic regression equation appearing in Table 6.1 predicts this impact would continue. An identical approach was used to estimate administrative savings for new claimants. The same approach was also used to estimate the increase in administrative costs that result because NDDP causes a small increase in the receipt of JSA. According to DWP figures, the annual cost of administering JSA is £46.50 or £3.87 per month.

To make the estimates necessary infer earnings, we first converted the month-by-month employment impacts into NDDP's impact on total months employed. (For example, as shown in Table 5.3, it was estimated that continuing claimants in the 24-month cohort increased their employment by 0.0331 percentage points in post-registration month 1 because of NDDP, by 0.0451 percentage points in post-registration month 2, etc.) The impact on total months employed was computed by summing the monthly estimates (0.0331 + 0.0451 +….). Using the 24-month cohort to obtain these values for the first 24 months and the predictive regressions for the months thereafter, and discounting by 3.5 per cent (see the following section), we find that NDDP increased employment by a total of 5.8114 months for an average continuing registrant and by a total of 2.4325 months for an average new registrant.[32] We then multiplied these figures by the monthly earnings received by the average NDDP participant who reported post-registration employment, £581.13 in 2005 prices. This figure excludes tax payments, National Insurance contributions and tax credits, which, as discussed below, are separately estimated. Thus, we estimate that NDDP increased the net earnings of continuing claimants by £3,777, on average, and the net earnings of new claimants by £1,414, on average. Exactly the same approach was used to estimate NDDP's impacts on tax payments and National Insurance contributions; tax credit, Council Tax Benefit and Housing Benefit.

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[31] To the extent that economies of scale occur in administering benefits when individuals receive benefits under multiple programmes, this assumption will result in overstating the savings in administrative costs that result when NDDP registrants leave the benefit rolls. This bias is expected to be small.

[32] Note that these estimates are averages for all NDDP registrants, not just those who were employed as a result of the programme. Thus, they incorporate zero months for registrants whose employment status was unaffected by the programme.

The data needed to derive monthly earnings were obtained from data collected in the *Survey of Registrants*. Unfortunately, it was not possible to obtain separate estimates for continuing and new claimants from this source, making it necessary to use the £581.13 figure for both groups. The implications of doing this are discussed later. Estimates of the tax payments and National Insurance contributions made by individuals with net monthly earnings of £581.13, the National Insurance contributions made by the employers of such persons, the amount of tax credit such persons would receive, and the amount their Council Tax Benefit and Housing Benefit would be reduced relative to persons with no earnings were obtained from the DWP's Pathways model.[33] The monthly values of these amounts are as follows: the worker's tax payments and National Insurance contributions equal £67.33; the employer's National Insurance contributions equal £31.01; tax credits received by the worker equal £106.72 on average[34]; and the reduction in Council Tax Benefit and Housing Benefit equal £65.00.

We refer to the tax payments mentioned above as 'direct taxes' because they are based on earnings and typically withheld from pay checks. Individuals are also subject to 'indirect taxes' on their expenditures. These result from the VAT and duties on petrol, alcohol, tobacco and other commodities. Within the income range of NDDP customers, the marginal indirect tax rate is about 28 per cent[35]. Thus, we compute the effect of NDDP on indirect tax payments by multiplying this rate by the programme's impact on disposable income (i.e. the increases in net earnings, JSA, and tax credits resulting from NDDP less reductions in incapacity benefits and Council Tax and Housing Benefit).

In multiplying NDDP's impact on months worked by the estimate of monthly earnings, we are assuming that NDDP had no impact on the hours worked per month by those who would have been employed in the absence of the programme or on the hourly wage rates of those who found employment. This is a conservative assumption; if NDDP has a positive impact on employment, then it is also likely to have a positive impact on hours worked per month by those who are employed. For example, as pointed out previously, there is evidence that some registrants who would have worked fewer than 16 hours increased their hours above this amount as a result of NDDP. Moreover, Job Brokers only receive job and sustained employment incentive

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[33] This model applies the current taxation, tax credit, and Council Tax Benefit and Housing Benefit rules to individuals at different earnings levels. We are indebted to Alex Wilks of DWP for providing us with these estimates.

[34] A worker with net monthly earnings of £581.13 would actually be eligible for £213.45 of tax credits per month. However, based on survey information and judgment, DWP assumes that the take up rate for tax credits among incapacity beneficiaries who move into employment is 50 per cent. In conducting the cost-benefit analysis, we make the same assumption.

[35] We are indebted to the DWP Costings Team for providing information on marginal indirect tax rates.

payments for claimants who work eight hours or more a week and they receive larger payments for claimants who work full-time. Thus, they have a strong incentive to try to increase the work hours of claimants.[36] Hence, the actual total 'net' benefits of NDDP (i.e., total programme benefits minus total programme costs) are likely to be understated by their estimated values.

5.4 Discounting

Because NDDP's impacts and, hence, benefits occur over a number of years, and benefits that are received later are of less value than similar amounts that are received sooner, a discount rate is used to convert the streams of benefits resulting from NDDP to their present values. This is standard practice in cost-benefit analysis. Otherwise, benefits that occur at different points of time are not comparable and also cannot be appropriately compared to costs, which in NDDP are mostly incurred soon after registration. Once benefits in each month are converted to their present values, total programme benefits can be computed by simply summing these present values.

Although there is considerable debate over the appropriate discount rate, recent assessments by the Treasury (2003), Moore *et al.*, (2004), and Boardman *et al.*, (2006) all recommend using an annual discount rate of 3.5 per cent to compute the present values of the benefits from programmes such as NDDP. Boardman *et al.*, (2006) further suggest using an upper bound of five per cent and a lower bound of one per cent for sensitivity analysis. Following these recommendations, we use 3.5 per cent for our central estimates of net benefits and test the sensitivity of these estimates to using one and five per cent instead.

[36] Programme impacts on hourly wage rates seem less likely as most Job Brokers do little to increase the job skills of registrants.

6 The Government's perspective

Summary

- The New Deal for Disabled People (NDDP) is cost-beneficial from the Government's perspective.
- This conclusion appears to be highly robust to the assumptions that underlie it.
- NDDP is found to reduce the Government's budgetary requirements by over £2,500 for a typical continuing claimant and by £750 to £1,000 for an average new claimant.
- The Government saved between £3.41 and £4.50 for continuing claimants and between £1.71 and £2.26 for new claimants in benefit payments and administrative expenditures for each pound it expended on NDDP.
- The benefits received by the Government exceeded the costs incurred by the Government at both relatively large and small Job Brokers, but did so to a much greater extent at the former than at the latter.

Table 6.1 shows how NDDP affects the Government's budget. The figures all pertain to a typical or average NDDP registrant. Because separate cost estimates are not available for continuing and new claimants (although separate benefit estimates are), it is assumed that identical costs were engendered by the average registrant in each of these two groups.[37] The estimates of net benefits in Table 6.1 were computed by subtracting the cost estimates from the benefit estimates. Because three alternative estimates of NDDP's costs are available, three estimates of net benefits are presented.

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[37] It is plausible that the cost of serving new claimants is less than the cost of serving continuing claimants because the former have been more recently employed, on average, than the latter. However, there is no way of knowing this for certain.

Table 6.1 NDDP's benefits and costs per registrant from the Government's perspective

	Continuing claimants	New claimants
Benefits		
Reduction in IB/IS/SDA expenditures	£3,165	£1,764
Reductions in costs of administering IB/IS/SDA	£22	£13
Reductions in expenditures on housing and council tax benefits	£378	£158
Increases in direct tax revenues and National Insurance contributions	£391	£164
Increases in indirect tax revenues	£136	-£60
Increases in employers' National Insurance contributions	£180	£75
Costs		
Increases in JSA	£30	33
Increase in cost of administering JSA	£3	£1
Increases in Tax Credits	£620	£260
Government costs of operating NDDP (alternative estimates)		
Lower-Bound estimates	£804	£804
Upper-bound estimates	£1,052	£1,052
Actual Government expenditures	£1,062	£1,062
Net benefits (benefits – costs)		
Based on the lower-bound costs	£2,815	£1,016
Based on the upper-bound costs	£2,567	£768
Based on actual Government costs	£2,557	£758

Note: All values are in 2005 prices.

The key finding in Table 6.1 is that, regardless of the cost estimate used in their computation, net benefits are substantially positive for both continuing and new claimants, suggesting that NDDP reduces the Government's budgetary requirements.[38] To view this somewhat differently, the figures in Table 6.1 imply that for each pound it invests in NDDP, the Government saves between £3.41 and £4.50 for continuing claimants and between £1.71 and £2.26 for new claimants in benefit payments and administrative expenditures.

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[38] The net benefits in Table 6.1 are computed by dividing benefits (B) less costs (C) by the number of programme participants (N): (B – C)/N. We could have instead divided by the number of additional jobs resulting from NDDP (ΔJ): (B – C)/ΔJ, where ΔJ is the product of N and the percentage point increase in employment resulting from NDDP (Δ%E). Thus, (B – C)/ΔJ = (B – C)/N(Δ%E). Hence, to convert the net benefits per participant estimates that appear in Table 6.1 into net benefits per additional job estimate, it is only necessary to divide them by (Δ%E). Unfortunately, the percentage point increase in employment resulting from NDDP is not known. One approach to this is to use the largest of the estimated monthly impacts on employment as an approximation. More programme participants will be working **as a result of the programme** during this month than during any other. Because NDDP's impacts on employment first steadily increase and then decline (see Figures 5.3 and 5.4), use of the 'peak impact' value would produce the correct estimate of the additional jobs resulting from the programme **if** each individual who took a job as result of the programme, kept that job until the peak impact occurred, or longer. In practice of course, participants will leave jobs during each time period and other participants will find jobs during the same period. Thus, the latter replace the former. To the extent such job 'churning' takes place, use of the largest impact estimate will result in understating the total number of additional jobs resulting from the programme, but by less than using an impact estimate from another time period. The peak impact on employment for continuing claimants occurs in month 34 (see Table 5.6) and equals .1172 and the corresponding figure for new claimants occurs in month 23 and equals .0754. Thus, if these figures are used for conversion purposes, the net benefit estimates in Table 6.1 would increase by about eight and a half fold for continuing claimants (1/.1172) and by over 15 fold for new claimants (1/0754). However, we do not recommend converting the net benefits per participant estimates in Table 6.1 into net benefits per additional job estimate. Because job churning may be appreciable, dividing (B-C) by the peak employment impact estimates may introduce substantial errors into the cost-benefit analysis. Moreover, the number of programme participants reflects programme size but not programme success, while the numbers of additional jobs that result from a programme are a function of both factors. Thus, when (B-C) is divided by ΔJ, the resulting figure is somewhat difficult to interpret. This does not occur when dividing (B-C) by N because only project size is standardised.

The net benefit estimates are little affected by the fact that a 3.5 per cent discount rate, instead of a smaller discount rate, was used in computing them. For example, if a one per cent discount rate had been used instead, net benefits would be only £204 larger for continuing claimants and £99 larger for new claimants. The net effect of NDDP on the Government's budget would also be more positive than shown in Table 6.1 if the programme reduces the utilisation of the National Health Service by registrants. However, there is no evidence that it does this. Although self-reported information by respondents to the *Survey of Registrants* indicates that the health of registrants improved, it is not known whether this improvement, which was small,[39] resulted in a reduction in the use of health services. It is also not known whether this small self-reported improvement was due to NDDP or would have occurred without the programme or even whether the improvement was concentrated among those who found work as a result of the programme, the group whose health is most likely to be affected by NDDP.

As discussed earlier, the estimates of NDDP's impacts on direct tax payments and National Insurance contributions; tax credits, Council Tax Benefit and Housing Benefit that appear in Table 6.1 rely on estimates of how much an individual with monthly net earnings of £581.13, the average for NDDP registrants who became employed, pays out or receives under each of these programmes. However, this approach is accurate only if there is a linear relation between earnings and the amount paid or received under each programme, and there is not. For example, monthly earnings are £283 for individuals at the 25th percentile, £549 for those at the median, and £775 for registrants at the 75th percentile; but monthly income taxes and National Insurance payments are zero, £52, and £163, respectively, for these individuals. Similar non-linear relations exist for the other programmes. A simple alternative approach to the one used in making the computations appearing in Table 6.1 is to assume that individuals in the bottom half of the earnings distribution made no income tax or National Insurance contributions and those in the top half of the earnings distribution paid £163. Using this approach to re-estimate NDDP's impacts on employers' National Insurance contributions and registrant's tax credits and Council Tax Benefit and Housing Benefit, as well as to re-estimate the programme's impact on the direct tax payments and National Health contributions of registrants, results in net benefit estimates that are slightly larger than those reported in Table 6.1. Specifically, they are £45 larger for continuing claimants and £19 larger for new claimants.

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[39] For example, the self-reported health status of 30 per cent of the respondents improved between the first and the second waves of the *Survey of Registrants*, the health status of 23 per cent of the respondents deteriorated, and the self-reported health status of the remaining 47 per cent of the respondents did not change (Kazimirski *et al.*, 2005, p. 161).

More important than the issue of whether there are factors that might increase the net benefit estimates is whether there are any considerations that might reverse the finding that the net benefits from NDDP are positive from the Government's perspective.[40] It is apparent from Table 6.1 that this finding does not change when net benefits are computed with the three alternative estimates of costs. The finding is also robust to the value of the discount rate that is used to compute benefits. For example, if a five per cent discount rate is used instead of the 3.5 per cent discount rate, net benefits would be only £104 smaller for continuing claimants and only £50 smaller for new claimants. The net benefit estimates are somewhat more sensitive to the prediction that programme impacts would continue to exist beyond the 36 months for which they were directly estimated. However, even if it is assumed that NDDP had **no** impacts beyond those observed during the first 36 months after NDDP registration and the largest of the three cost estimates in Table 6.1 is used for the calculation, net benefits for a typical continuing claimant would still exceed £1,500 and net benefits for a typical new claimant would still exceed £400.[41]

Finally, we conduct a sensitivity analysis that assumes that NDDP's impact on the receipt of Incapacity Benefit (IB), Income Support (IS) and Severe Disablement Allowance (SDA) and, hence, on reducing Government expenditures for these programmes is one-third smaller than the impacts reported in Table 5.1. Based on this assumption, the Government's net benefits fall but remain substantially positive (specifically, they are between £1,513 and £1,771 for a typical continuing claimant and between £176 and £431 for an average new claimant). The basis for this sensitivity analysis is an auxiliary impact analysis conducted by Orr, Bell and Lam (2007). Although their main estimates of NDDP's impacts on IB, IS and SDA receipt and payment amounts (the values reported in Table 5.1) are based on programme administrative data, they also estimated these impacts using survey data. The survey-based impacts are about one-third smaller than those relying on the administrative data. The major advantage of the survey data are that they allow additional covariates to be included in estimating the impacts. However, Orr, Bell and Lam (2007) point out a number of serious disadvantages with the administrative data, most of which result from the small available sample and the likelihood that this sample does not represent NDDP registrants very well.[42] Thus, they have greater confidence in their impact findings that are based on the administrative data and consider these their core impact estimates.[43]

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[40] As discussed earlier, we arbitrarily assume that NDDP's impact on the receipt of JSA by continuing claimants would disappear after ten years. If we had instead assumed that this impact would continue for only five years, the increase in the cost of administering Jobseeker's Allowance (JSA) that is attributable to NDDP would decline from the £3 figure in Table 6.1 to £1. This obviously has negligible implications for the cost-benefit analysis.

[41] In making these calculations, the first 24 months of impact estimates were obtained from the 24-month cohort and the remaining 12 months of impact estimates were obtained from the 36-month cohort (see Tables 5.1 to 5.3.

[42] See Orr, Bell and Lam (2007) for a full discussion.

[43] This assertion is based on email correspondence with the authors on 14 February 2007.

In summary, the sensitivity analyses presented above suggest that it is highly probable that NDDP is cost-beneficial for both continuing and new claimants from the Government's perspective.

Table 6.2 presents separate benefit and costs estimates for large Job Brokers (i.e. those with over 900 registrants) and small Job Brokers (those with fewer than 900 registrants). The procedures followed in making these computations were exactly the same as those used to compute the estimates in Table 6.1, which are for all Job Brokers regardless of their size, except that the values in Table 6.2 are based on separate cost estimates for the two groups of Job Brokers and separate impact estimates for their customers.

The lower-bound cost estimates in Table 6.2 are smaller than the upper-bound estimates for large Job Brokers but identical for small job brokers because the two Job Brokers that we think overstated their costs are both part of the large Job Broker group. Thus, as described in Part II, the lower-bound cost estimates were obtained by adjusting the costs of these two Job Brokers downward. Actual Government expenditures are greater for large Job Brokers than small Job Brokers because they received larger amounts of Government incentive payments per registrant as a result of placing a larger share of their registrants into jobs and having a larger fraction of their registrants work for at least six months.

Table 6.2 Benefits and costs for large and small Job Brokers: the Government's perspective

	Continuing claimants		New claimants	
	Large Job Brokers	**Small Job Brokers**	**Large Job Brokers**	**Small Job Brokers**
Benefits				
Reduction in IB/IS/SDA expenditures	£4,194	£2,178	£2,242	£1,195
Reductions in costs of administering IB/IS/SDA	£28	£14	£17	£8
Reductions in expenditures on housing and council tax benefits	£405	£346	£144	£167
Increases in direct tax revenues and National Insurance contributions	£420	£358	£149	£173
Increases in indirect tax revenues	-£68	£322	-£224	£116
Increases in employers' National Insurance contributions	£193	£165	£69	£80
Costs				
Increases in Jobseeker's Allowance	£66	£14	£60	£11
Increase in costs of administering JSA	£2	£1	£1	£1
Increases in Tax Credits	£666	£568	£237	£274
Government costs of operating NDDP (alternative estimates)				
Lower-bound estimates	£683	£1,084	£683	£1,084
Upper-Bound estimates	£1,038	£1,084	£1,038	£1,084
Actual Government expenditures	£1,196	£751	£1,196	£751
Net benefits (benefits - costs)				
Based on the lower-bound costs	£3,755	£1,716	£1,416	£369
Based on the upper-bound costs	£3,400	£1,716	£1,061	£369
Based on actual Government costs	£3,242	£2,049	£903	£702

Note: All values are in 2005 prices.

There are two key findings in Table 6.2: The first is that the Government's benefits were larger than its costs for both continuing and new customers who enrolled at either large Job Brokers or small Job Brokers. The second important finding concerning Job Broker size is that net benefits for a typical customer who enrolled at a large Job Broker greatly exceeded those for an average customer who enrolled at a small Job Broker. Inspection of the table suggests that the second finding is mainly driven by

the fact that the Government's total expenditures on IS, IB and SDA benefit amounts fell by nearly twice as much for the customers of large Job Brokers than for the customers of small Job Brokers.

Greater detail on how NDDP's impacts on IB, IS and SDA benefit amounts differ between large and small Job Brokers is provided in Table 6.3. The values in the bottom row of the table indicate that these impacts are predicted to continue between four and five years regardless of Job Broker size.[44] Thus, prediction differences do not account for the finding that net benefits were greater at large Job Brokers. The fourth and seventh columns of the table, which show impacts at small Job Brokers as a proportion of those at large Job Brokers, indicate that the difference in impacts between the two groups of Job Brokers was especially great during the first year after registration but then shrank. Even then, however, impacts at large Job Brokers remained close to double those at small Job Brokers. It is not necessarily the case that size, per se, is responsible for this difference. For example, large and small Job Brokers may serve clients with different characteristics, operate in different labour markets or choose to provide different sets of services. That said, however, it is nonetheless the case that costs per registrant are lower at larger Job Brokers and their impact on disability-related benefits is larger. As will be seen later, however, their impact on employment does not greatly differ from that of smaller Job Brokers, even though, as reported in Part II, they place a greater proportion of their registrants into jobs.

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[44] In making these predictions, we again used the combined 24-month/36-month cohort. However, impact estimates that are based on the 36-month cohort were not separately estimated for large and small Job Brokers. Thus, to obtain impact estimates for months 25 through 36 we solved the following simple two equation system:

$$(1)\ (P_L)(I_{L,m}) + (1\text{-}P_L)\ (I_{S,m}) = I_{T,m} \qquad \text{and}$$

$$(2)\ I_{S,m} = (I_{L,m})(I_{S,m}/I_{L,m})$$

where the subscript m denotes a particular month; the subscripts L, S, and T respectively denote large, small, and the combination of large and small Job Brokers; I is an estimate of NDDP impact on IB, IS and SDA benefit amounts; and P_L is the proportion of the total sample of observations used in the impact analysis that is accounted for by large Job Brokers. Estimates of $I_{T,m}$ for months 25 through 36 are available from the 36-month cohort (see Table 5.1), and P_L is, of course, known. The values of the ratio $I_{S,m}/I_{L,m}$ are not known for months 25 through 36. They are known for months 1 through 24, however, and as can be seen from Table 6.3, become quite stable in the last year of this period. Based on the information in this table we assume that during months 25 through 36, the value of $I_{S,m}/I_{L,m}$ is 0.55 for continuing claimants and 0.57 for new claimants. Once a value for $I_{S,m}/I_{L,m}$ was assumed, equation (2) and the values of $I_{T,m}$ and P_L were substituted into equation (1) and the values of $I_{L,m}$ were computed for months 25 through 36. The values of $I_{S,m}$ were similarly obtained for months 25 through 36. The computations were made separately for continuing and new claimants. Although this method is illustrated for impacts on IB, IS, and SDA benefit amounts, a similar procedure was followed for impacts on other outcomes.

Table 6.3 Estimated impacts of NDDP on IB/IS/SDA benefit amounts for large and small Job Brokers in 2005 prices

	Continuing claimants					New claimants				
Month after registration (1)	Large Job Brokers (2)		Small Job Brokers (3)		Col(3)/ Col(2) (4)	Large Job Brokers) (5)		Small Job Brokers (6)		Col(6)/ Col(5 (7)
1	-£23	***	-£6	***	.27	-£12	***	-£4	**	.31
2	-45	***	-14	***	.32	-23	***	-4		.16
3	-58	***	-21	***	.36	-31	***	-10	***	.33
4	-67	***	-27	***	.40	-36	***	-16	***	.46
5	-73	***	-32	***	.44	-41	***	-20	***	.49
6	-77	***	-35	***	.46	-43	***	-22	***	.51
7	-81	***	-39	***	.47	-45	***	-23	***	.52
8	-86	***	-42	***	.49	-48	***	-25	***	.52
9	-89	***	-44	***	.50	-48	***	-26	***	.53
10	-91	***	-47	***	.51	-50	***	-25	***	.50
11	-94	***	-48	***	.51	-50	***	-23	***	.47
12	-97	***	-50	***	.52	-52	***	-27	***	.51
13	-100	***	-52	***	.52	-54	***	-31	***	.57
14	-103	***	-54	***	.53	-58	***	-33	***	.57
15	-104	***	-55	***	.53	-63	***	-35	***	.55

Continued

Table 6.3 Continued

Month after registration (1)	Continuing claimants: Large Job Brokers (2)		Continuing claimants: Small Job Brokers (3)		Continuing claimants: Col(3)/Col(2) (4)	New claimants: Large Job Brokers) (5)		New claimants: Small Job Brokers (6)		New claimants: Col(6)/Col(5 (7)
16	-105	***	-56	***	.54	-64	***	-36	***	.56
17	-105	***	-58	***	.55	-67	***	-37	***	.55
18	-106	***	-58	***	.54	-67	***	-38	***	.56
19	-106	***	-58	***	.55	-68	***	-38	***	.56
20	-107	***	-59	***	.55	-68	***	-40	***	.59
21	-109	***	-59	***	.54	-68	***	-39	***	.58
22	-109	***	-60	***	.55	-68	***	-37	***	.55
23	-109	***	-59	***	.54	-66	***	-37	***	.56
24	-109	***	-59	***	.55	-66	***	-37	***	.57
Predictions:										
Month of impact peak	22		22			21		20		
Month impact ends	55		53			50		48		

** Statistically significant at the 5 percent level.

*** Statistically significant at the 1 percent level.

7 The customer's perspective

Summary

- There is considerable uncertainty as to whether the New Deal for Disable People (NDDP) is cost-beneficial from the perspective of NDDP registrants, especially for continuing claimants. Much of this uncertainty is due to shortcomings in the administrative data used to estimate the effects of NDDP on incapacity benefits and employment and to benefits and costs that could not be measured.
- The income of a typical NDDP registrant was probably increased by the programme, but not by a very large amount.
- The rather scant evidence that exists suggests that NDDP did not improve the health and the quality of life of registrants by very much, if at all.
- Once increases in work-related costs (e.g., childcare and commuting expenses and the value of time given up in going to work) are taken into consideration, it seems likely that a typical NDDP registrant benefited as a result of having participated in the programme but only to a very modest degree.
- Because their Income Support (IS), Incapacity Benefit (IB) and Severe Disablement Allowance (SDA) payments fell by less, claimants who registered at small Job Brokers were better off than claimants who registered at large Job Brokers. Overall, NDDP appears to be most cost-beneficial for continuing claimants who registered at small Job Brokers and least cost-beneficial for new claimants who registered at large Job Brokers.

This section examines whether NDDP registrants are made better off by the programme. As a first cut, we measure net benefits from the perspective of NDDP registrants as changes in their incomes resulting from the programme. Table 7.1 summarises the net effect of NDDP on the income of a typical continuing registrant and on the income of a typical new claimant. The table implies that net benefits are positive for the former and negative for the latter, but fairly modest in both cases.

The reduction in the income of a typical new claimant results because their increase in earnings is more than offset by reductions income transfers. Thus, the major benefit of NDDP from the perspective of the Government is a cost from the point of view of claimants. The net increase in income received by a typical continuing claimant is entirely attributable to tax credits that result from employment. Their gain in earnings is entirely offset by losses in incapacity benefit payments and Housing Benefit and Council Tax Benefit and increases in indirect taxes.

Table 7.1 NDDP's benefits and costs per registrant from the customer's perspective

	Continuing claimants	New claimants
Benefits		
Increases in earnings net of direct taxes	£3,377	£1,414
Increases in Jobseeker's Allowance	£30	£33
Increases in Tax Credits	£620	£260
Costs		
Increases in indirect taxes	£136	-£60
Reductions in IB/IS/SDA receipts	£3,165	£1,764
Reductions in receipts from housing and council tax benefits	£378	£158
Net benefits (benefits - costs)	£348	-£155

Note: All values are in 2005 prices.

Although Table 7.1 indicates that the income of a typical new claimant fell somewhat as a result of NDDP, there are two reasons to believe that this estimate is downward biased: First, as previously mentioned, it was necessary to assume that the earnings of continuing and new NDDP registrants were the same when they were employed, namely £581 per month. However, it seems likely that the monthly earnings of the latter were actually larger than those of the former because new claimants are more likely than continuing claimants to have fairly recent work experience prior to registering with a Job Broker and thus, are likely to work more hours per month at a higher hourly wage once they obtain post-registration employment. Thus, their actual post-registration earnings may well exceed £581 per month. However, the earnings differential between continuing and new claimants would have to be large to influence the net benefits of new claimants very strongly. For example, if their monthly earnings were actually £781, rather than £581, an understatement of actual earnings of slightly more than one-third, the programme effect on their

net earnings would increase by a bit less than £500 (£1,414x(781/581) - £1,414).[45] Second, as discussed earlier, there is reason to expect that NDDP increases the hours of work of employed registrants, as well as increasing the level of employment of registrants. Again, it is unlikely that the net benefit estimates for new claimants in Table 7.1 are greatly understated as a result unless the programme effect on their hours was substantial. To illustrate, assume that the average hours of employed new claimants increased by one percentage point as a result of the programme. Because over 60 per cent of new claimants were employed during most of the months after they registered with NDDP (see Orr, Bell and Lam, 2007), given monthly earnings of £581, this would result in an average increase in earnings of £3.49 (.01x.60x£581) per month for a typical new claimant or a total of about £125 if the one percentage point effect on hours were to continue for 36 months. If the average impact on the hours of employed new claimants was five percentage points, rather than one percentage point, the effect on earnings would be £625, but a five percentage point impact seems very large. Note that there would be similar effects on continuing claimants, but they would be smaller because only about 40 per cent of them worked after registration. We conclude that if the estimates of the effect of NDDP on the net income of a typical new claimant were adjusted for both of these biases, it would probably turn positive, but it would be unlikely to be large.

The estimates of net income that appear in Table 7.1 are little affected by the 3.5 per cent discount rate that was used in their computation. For example, if a discount rate of 1.0 per cent is used instead, the net benefit estimate for a typical continuing claimant increases by a little over £100 and that for a new claimant declines by about £5. The findings are also relatively insensitive to allowing for a non-linear relation between earnings and tax credits and between earnings and Council Tax Benefit and Housing Benefit. If we assume, for example, that individuals in the bottom half of the registrant earnings distribution received £149 of tax credits and lost £8 of Council Tax Benefits and Housing Benefits during each month they worked (the values for individuals at the 25th percentile) and the corresponding figures for those in the top half of the registrant earnings distribution were £53 and £95 respectively (the values for individuals at the 75th percentile), the estimated net benefits for continuing claimants decline by £152 and those for new claimants decline by £65.

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[45] Because both new and continuing claimants who were employed were included in the sample used in estimating monthly earnings, if the £581 figure understates the earnings of the former, it must overstate the earnings of latter, thereby biasing the estimated effect of NDDP on the net income of continuing claimants upward. However, although new claimants are about 50 per cent more likely to be employed than continuing claimants, there are more than four times as many continuing claimants as new claimants (see Orr, Bell and Lam, 2007, Table A.12). As a consequence, the understatement of the earnings of new claimants would be much larger than the overstatement of the earnings of continuing claimants. Thus, the upward bias on the net earnings of continuing claimants is likely to be relatively small.

The net benefit estimates are considerably more sensitive to extrapolating the programme impacts beyond the 36 months for which they were directly observed. For example, if it is assumed that NDDP had no impacts beyond the 36 month observation period, the estimated net benefits for continuing claimants change from a positive value of £348 to a negative value of -£724, while the net benefits for new claimants change from a negative value of -£155 to a positive value of £106. The change for new claimants is not too much of a concern as the estimate continues to hover around zero, but the change for continuing claimants is striking. It is mainly attributable to the fact that nearly half of the gain in earnings and tax credits that appear in Table 7.1 for continuing claimants are predicted to occur after 36 months, but over three-quarters of the losses in IB, IS and SDA receipts are predicted to occur within the 36 months observation period. Thus, the estimates of the gains and losses to continuing claimants are both diminished by assuming that impacts are zero after 36 months, but the gains fall by considerably more.

While this finding for continuing claimants does demonstrate that the estimates of the effects of NDDP on the net income of this group are sensitive to how programme impacts are extrapolated, it seems unlikely that the income of continuing claimants was actually reduced by NDDP. A glance back at Figure 5.3 suggests that NDDP's impact on the employment of continuing claimants was still slightly increasing at 36 months. This impact clearly did not end at 36 months. If it continued at the level it reached at month 36 for a bit over another year, the effect of NDDP on the net income of continuing claimants would be positive. Moreover, as shown in Table 5.6, in estimating the regressions of changes in employment impacts over time, the linear specification fits the data for continuing claimants at least as well as the quadratic specification. Thus, it is possible that NDDP's impact on employment lasted even longer than the quadratic regression that was used in extrapolating the employment impact for this group implies. If so, the net benefit for continuing claimants would be larger than the estimates that appear in Table 7.1 suggest.

The data that were used to estimate the NDDP employment impacts reported in Table 5.3 were obtained from national tax records[46]. Unfortunately, these administrative data are subject to potentially serious reporting errors. On the one hand, the tax data are likely to miss some persons who find jobs as a result of NDDP and thereby understate impacts on employment. For example, persons who are below the tax threshold and the self-employed are not included. On the other hand, impacts on employment could be overstated because of the practice of coding missing job start and end dates to the first and last days of the tax year (e.g. 6 April 2002 and 5 April 2003). This makes it appear that a subset of workers who worked only part of a tax year was employed in some months during which they were actually not working. For example, about 20 per cent of all jobs were coded as starting on 6 April, although

[46] See Orr, Bell and Lam (2007) for a description of these data.

they actually started later.[47] While these biases tend to work in the opposite direction, there is no way of knowing which is stronger.

The administrative data that Orr, Bell and Lam (2007) used to estimate NDDP's impacts on the receipt of incapacity benefits is not subject to either of the reporting biases just discussed. Thus, we used these impact estimates in a sensitivity test. Specifically, we recomputed earnings assuming that all the individuals who left the IB, IS, and SDA as a result of registering for NDDP were employed while off these benefits. In other words, we derived the earnings increase resulting from NDDP by using the estimates of NDDP's impact on months off incapacity benefits, which appear in Table 5.1, instead of the estimates of NDDP's impact on months employed, which are reported in Table 5.3. The results imply that the net benefits to registrants from NDDP are nearly £1,000 for both a typical continuing claimant and a typical new claimant. However, there is one reason to suspect that these estimates understate the true net benefits of NDDP to registrants and two reasons to suspect that they overstate them. They will understate them to the extent that NDDP induces registrants to take jobs for so few hours that they do not leave the incapacity benefit rolls. Operating against this bias is the fact that the incentives offered to Job Brokers encourage them to try to find full-time jobs for their registrants, not jobs with low hours. Moreover, the earnings of persons who work relatively few hours would presumably be rather low. The net benefit estimates will be overstated to the degree that some persons who exited IB, IS, or SDA as a result of NDDP were not employed the entire time they were off these benefits.[48] For example, some probably replaced incapacity benefits with benefits from other programmes and others who were initially employed later lost their jobs without immediately, if ever, returning to incapacity benefits. It will also be overstated to the extent that some NDDP participants exited IB, IS or SDA as a result of increasing their hours of work, rather than because they took jobs. It seems likely that the latter two factors dominate the first, suggesting that the estimated net benefit of nearly £1,000 is best viewed as an upper bound.

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[47] See Orr, Bell and Lam (2007) for a more detailed discussion of both of these issues. They point out that although a preliminary analysis by Department For Work and Pensions (DWP) staff found that less than half the jobs reported by Job Brokers were found in their administrative data, the percentage of NDDP registrants who are reported as employed in their data is consistent with the percentage reported by Job Brokers and the percentage reported in the *Survey of Registrants*. They conclude that *'taken together, [the two] factors are cause for treating the employment data with caution, though the close correspondence of reported employment rates with those from two other evaluation sources gives us confidence that the impact results for employment derived from these data are reliable'*.

[48] Only a little over half the sick and disabled persons leaving the IB and IS programmes directly entered employment in 1994 (Coleman and Kennedy 2005, Table 3.1). However, this percentage would be expected to be much higher for those who leave incapacity benefits **as a result** of participating in NDDP.

We noted in Chapter 6 that in an auxiliary impact analysis using survey data, Orr, Bell and Lam (2007) estimated impacts on IB, IS and SDA receipt and payment amounts that are about one-third smaller than those they obtained using programme administrative data. We also indicated that they have greater confidence in the latter impact findings than the former. However, if we, nevertheless, take the survey-based findings at face value and, thus, assume that the incapacity impact estimates based on administrative data are overstated by a third, net benefits for continuing claimants would increase to £1,392 (from £348) and those for new claimants would become positive, increasing to £427 (from -£155).

These net benefit values are probably too large, however, even if the impacts on incapacity benefit that were estimated with survey data are accepted as valid. The reason is that if the reduction in IB, IS and SDA that results from NDDP is overstated when certain covariates cannot be included in the impact regression, it is likely that the estimate of the increase in earnings that results from NDDP is also overstated when, as was the case, the same covariates are excluded from the impact regression. In other words, both impact estimates will be biased away from zero. This occurs because programme impacts on earnings and incapacity benefits will tend to be negatively correlated since increases in earnings cause reductions in IB, IS and SDA benefit amounts. Thus, if the impact on incapacity benefits shrinks as certain covariates are added to the regression used to estimate this impact, then so should the impact on earnings if the same covariates are included in the regression used to estimate NDDP's effect on earnings (although not necessarily by a similar amount). Unfortunately, we cannot test this proposition because Orr, Bell and Lam (2007) were unable to estimate the impact of NDDP on earnings using survey data. Thus, it must remain a conjecture. Nevertheless, it seems likely that if the cost to NDDP registrants from reductions in incapacity benefits that appears in Table 7.1 is too large, then the benefit to registrants from earnings increases that is shown in the table is also overstated. These effects obviously tend to be offsetting.

Overall, it seems likely that the average income of NDDP registrants was increased by the programme. The amount of this increase was probably fairly modest, especially for new claimants, with the exact amount depending on the degree to which the estimated impacts on employment were biased either upward or downward by reporting errors, the length of time the impacts on employment persisted, and the extent to which NDDP induced registrants who would have been employed, even in the absence of the programme, to increase their hours of work.

The effect of NDDP on the incomes of registrants does not necessarily indicate whether the programme has made them better or worse off. There are other important considerations that, while more difficult to measure than effects on income, are highly relevant. For example, because NDDP increased the employment of registrants, it also increased such work-related expenses as childcare and commuting costs. Although no estimates of programme impacts on these costs are available, travel expenditures may be especially large for some disabled persons. Another potential cost of NDDP that is not reflected by changes in income, one that again may be

especially important to some disabled persons, particularly those with children, is the time that individuals must give up when they go to work. This time may be of considerable value to those relinquishing it. There is at least some previous research that suggests that, while these losses do not fully offset the improvements in earnings that result from increases in employment, the offset is substantial, probably not less than a quarter of the earnings increase and quite likely more (Bell and Orr, 1994; Greenberg, 1997, and Greenberg and Robins, 2005). If we assume conservatively that the offset is a quarter of the earnings increase, the estimated net increase in the average income of continuing claimants would fall by £844 (.25x£3,377), from £348 to -£496, and that for new claimants would fall by £354 (.25x£1,414), from -£155 to -£509.

In principle, the work-related costs associated with increases in employment could be potentially partially or fully mitigated by several non-monetary benefits that also result from these increases. For example, the self-esteem of disabled persons who become employed as a result of NDDP could improve, and NDDP registrants could be happier and healthier as a consequence of participating in the programme. However, the somewhat scant evidence that exists suggests that changes for the better in the quality of life and in the health of NDDP registrants were small at best. For example, although there were perhaps slight improvements, the self-reported level of satisfaction of NDDP registrants with their lives was fairly stable over time, (Kazimirski *et al.*, 2005, pp. 173-175). Moreover, NDDP registrants do not appear to have increased their level of participation in social activities over time (Kazimirski *et al.*, 2005, pp. 170-173). In addition, as seen in the previous sub-section, self-reported improvements in health status seem to have been small. It should also be borne in mind that even when positive changes in the health and the quality of life of NDDP registrants do seem to occur over time, it is not clear that such improvements can be attributed to NDDP or would have taken place even without the programme.

In sum, it seems unlikely that the non-monetary benefits of increases in employment that resulted from NDDP were sufficient to offset costs associated with increased employment, especially those resulting from the time given up in going to work. As a consequence, unless NDDP substantially increases the hours of work of registrants who were employed, as well as their level of employment, NDDP's impact on employment persists for longer than we predict or the estimated employment impacts were strongly biased downward by reporting errors, the programme probably resulted in no more than very modest improvement in the overall welfare of registrants.

Table 7.2 presents separate benefit and costs estimates for large Job Brokers (i.e. those with over 900 registrants) and small Job Brokers (those with fewer than 900 registrants). The procedures followed in making these computations were similar to those used in computing the estimates in Table 7.1, except that the values are based on separate cost estimates for the two groups of Job Brokers and separate impact estimates for their customers. In interpreting Table 7.2, it is again important to bear in mind that it is not necessarily the case that differences between findings for large and small Job Brokers are attributable to size, per se. Such differences can result if large and small Job Brokers serve clients with different characteristics, operate

in different labour markets or choose to provide different sets of services. It is also important to keep in mind that only programme effects on the incomes of NDDP registrants are estimated. Other possibly important factors such as programme effects on work-related expenses, the availability of non-work time, self-esteem, happiness and health status are not measured.

Table 7.2 Benefits and costs for large and small Job Brokers: the customer's perspective

	Continuing claimants		New claimants	
	Large Job Brokers	Small Job Brokers	Large Job Brokers	Small Job Brokers
Benefits				
Increases in earnings net of direct taxes	£3,625	£3,092	£1,288	£1,491
Increases in JSA	£66	£14	£60	£11
Increases in Tax Credits	£666	£568	£237	£274
Costs				
Increases in indirect taxes	-£68	£322	-£224	£116
Reductions in IB/IS/SDA receipts	£4,194	£2,178	£2,242	£1,195
Reductions in receipts from housing and council tax benefits	£405	£346	£144	£167
Net benefits (benefits – costs)	-£174	£828	-£577	£298

Note: All values are in 2005 prices.

Table 7.2 indicates that NDDP has a positive impact on the incomes of incapacity benefit claimants who registered with small Job Brokers, especially in the case of continuing claimants, but a negative effect on the incomes of claimants who registered with large Job Brokers, especially new claimants. The differences between large and small Job Brokers do not occur because of differences in impacts on the employment, and hence the earnings, of claimants who registered with large and small Job Brokers. As shown in the fourth and seventh columns of Table 7.3, the estimates of employment impacts are usually fairly similar for large and small Job Brokers, although they are slightly larger for continuing claimants who registered with large Job Brokers and somewhat smaller for new claimants who registered with large Job Brokers. The findings mainly result because IS, IB and SDA benefit amounts fell by much more for the customers of large Job Brokers than for the customers of small Job Brokers (see Table 6.3). In other words, the very factor that accounted for net benefits being greater at larger Job Brokers from the Government's perspective, caused NDDP to have a negative effect on the net incomes of the persons who registered with these Job Brokers.

Table 7.3 Estimated impacts of NDDP on employment for large and small Job Brokers

	Continuing claimants					New claimants				
Month after registration (1)	Large Job Brokers (2)		Small Job Brokers (3)		Col(3)/ Col(2) (4)	Large Job Brokers) (5)		Small Job Brokers (6)		Col(6)/ Col(5 (7)
1	0.0428	***	0.0236	***	0.55	0.0329	***	0.0334	***	1.01
2	0.0536	***	0.0367	***	0.68	0.0378	***	0.0466	***	1.23
3	0.0618	***	0.0471	***	0.76	0.0392	***	0.0513	***	1.31
4	0.0662	***	0.0521	***	0.79	0.0398	***	0.0592	***	1.49
5	0.0708	***	0.0557	***	0.79	0.0372	***	0.0494	***	1.33
6	0.0759	***	0.0630	***	0.83	0.0307	***	0.0461	***	1.50
7	0.0782	***	0.0671	***	0.86	0.0404	***	0.0496	***	1.23
8	0.0805	***	0.0716	***	0.89	0.0407	***	0.0546	***	1.34
9	0.0843	***	0.0731	***	0.87	0.0374	***	0.0586	***	1.57
10	0.0871	***	0.0760	***	0.87	0.0404	***	0.0621	***	1.54
11	0.0880	***	0.0780	***	0.89	0.0429	***	0.0682	***	1.59
12	0.0910	***	0.0815	***	0.90	0.0486	***	0.0736	***	1.51
13	0.0939	***	0.0828	***	0.88	0.0482	***	0.0752	***	1.56
14	0.0952	***	0.0848	***	0.89	0.0460	***	0.0764	***	1.66
15	0.0981	***	0.0861	***	0.88	0.0506	***	0.0752	***	1.49

Continued

Table 7.3 Continued

Month after registration (1)	Continuing claimants: Large Job Brokers (2)		Continuing claimants: Small Job Brokers (3)		Col(3)/ Col(2) (4)	New claimants: Large Job Brokers) (5)		New claimants: Small Job Brokers (6)		Col(6)/ Col(5 (7)
16	0.0988	***	0.0897	***	0.91	0.0489	***	0.0768	***	1.57
17	0.1012	***	0.0914	***	0.90	0.0498	***	0.0761	***	1.53
18	0.1036	***	0.0930	***	0.90	0.0513	***	0.0764	***	1.49
19	0.1060	***	0.0943	***	0.89	0.0549	***	0.0761	***	1.39
20	0.1091	***	0.0962	***	0.88	0.0597	***	0.0808	***	1.35
21	0.1105	***	0.0994	***	0.90	0.0650	***	0.0819	***	1.26
22	0.1120	***	0.0998	***	0.89	0.0669	***	0.0816	***	1.22
23	0.1134	***	0.1014	***	0.89	0.0684	***	0.0837	***	1.22
24	0.1142	***	0.1021	***	0.89	0.0673	***	0.0825	***	1.23
Predictions:										
Month of impact peak	35		34			23		23		
Month impact ends	75		73			55		47		

8 The societal perspective

Summary

- The New Deal for Disabled People (NDDP) appears to have positive benefits from a social perspective.
- Although this conclusion cannot be considered definitive because estimates of all the relevant factors are not available (e.g. the size of substitution effects and the relative value of pounds that are received by NDDP registrants and by taxpayers), it seems robust to a large number of considerations.
- Net social benefits are considerably larger for continuing claimants than for new claimants.
- The estimates imply that the benefits to society are around £4 or £5 for each pound the Government expended on NDDP in serving continuing claimants and around £2 for each pound expended on serving new claimants.
- Net social benefits do not differ very much by Job Broker size.

Table 8.1 summarises NDDP's estimated net benefits from the perspective of society as a whole. Economists generally consider the societal perspective more relevant than that of the separate components of society, such as the Government or programme customers, because it is more inclusive. Because NDDP customers and the Government are the two components of 'society' that are directly affected by the programme, and for which we have already presented costs and benefits, Table 8.1 was constructed by simply summing the costs and benefits for these two entities that were previously reported in Tables 6.1 and 7.1. Thus, any items that were previously counted as a cost from the Government's perspective and a benefit from the registrant's perspective (for example, increases in the payments of tax credits), or vice-versa, are exactly offsetting and do not appear in Table 8.1. It is important to recognise that there are other groups in society that may potentially be affected by NDDP, at least indirectly, even though their costs and benefits do not appear in Table 8.1. These groups include workers who did not go through the programme and taxpayers. We consider programme effects on these groups below.

Government's payments to Job Brokers, which appear in Table 6.1 as 'actual Government expenditures', are not shown in Table 8.1. Instead, only the two alternative estimates of the total operating costs per registrant are reported. The reason is that costs to society should reflect total costs, not just the Government's part of these costs. For example, if the Government's payments are more than the total cost of operating NDDP, the Government is simply moving funds to Job Brokers, and there is no resulting cost to society because Job Brokers are part of society. On the other hand, if the Government's payments are less than the total cost of operating NDDP, the resulting losses to Job Brokers are a cost to society and should be counted as such.[49] For reasons previously discussed in detail, we have greater confidence in the smaller of the two alternative estimates of total operating costs.

Table 8.1 indicates that NDDP's net social benefits are positive for both continuing customers and new claimants, although considerably larger for the former than the later. Social net benefits would be about £700 larger for continuing claimants and around £1,100 larger for continuing claimants than those presented in the table if the increases in earnings resulting from NDDP were computed using the estimates of NDDP's impact on months off incapacity benefits impact estimates reported in Table 5.1, rather than the estimates of NDDP's impact on months employed reported in Table 5.3. As previously discussed, this probably provides an upper bound estimate of the net benefits resulting from NDDP.

According to Table 8.1, NDDP's benefits to society were between £3.77 and £4.93 for each pound the Government expended on the programme in serving continuing claimants and between £1.58 and £2.07 per pound expended on the new claimant group. The source of the difference between the two claimant groups is NDDP's larger impact on the employment and, hence, the earnings of continuing claimants. The apparently smaller net social benefit for new claimants is important because over time most continuing claimants who will ever register with NDDP will do so. Thus, most registrants will eventually be new claimants.

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[49] As previously discussed, some unknown part of NDDP's operating costs were subsidised by the European Social Fund, although we expect that these subsidies were relatively small. If areas outside the UK are not counted as part of 'society', programme operating costs will overstate society's costs to the extent the subsidies existed and, as a result, net social benefits will be understated.

Table 8.1 NDDP's benefits and costs per registrant from the societal perspective

	Continuing claimants	New claimants
Benefits		
Increases in earnings net of direct taxes	£3,377	£1,414
Increases in direct tax revenues and National Insurance contributions	£391	£164
Increases in employers' National Insurance contributions	£180	£75
Reductions in costs of administering IB/IS/SDA	£22	£13
Costs		
Increases in costs of administering JSA	£3	£1
NDDP operating costs (alternative estimates)		
Lower-bound estimates	£804	£804
Upper-bound estimates	£1,052	£1,052
Net social benefits (benefits – costs)		
Based on the lower-bound costs	£3,163	£861
Based on the upper-bound costs	£2,915	£613

Note: All values are in 2005 prices.

The key finding of positive net social benefits is quite robust to various sensitivity tests. For example, as seen previously, the findings from both the Government and the claimant perspectives are quite sensitive to assuming that NDDP has no impacts beyond the 36 months for which they were directly estimated. If the same extreme assumption is again made, net social benefits for continuing claimants remain above £1,000 and those for new claimants remain above £500, even when computed with the upper-bound estimate of programme operating costs. Another important previous consideration was the possibility that the time that is given up when employment increases has considerable value to those who relinquish it. If we again assume, as in the previous subsection, that the value of this lost time is equal to one-quarter of the earnings increase that resulted from NDDP, net social benefits remain positive, falling to between £2,071 and £2,319 for continuing claimants and between £259 and £507 for new claimants.

In all of the cost-benefit findings presented so-far, pounds gained or lost by the NDDP customers are treated as identical to pounds gained or lost by the Government. It is not clear that they should be. Costs to the Government imply that taxes must be higher than otherwise and benefits accruing to the Government imply that taxes can be lower than otherwise. On average, taxpayers have substantially higher incomes

than NDDP registrants[50], many of whom have had relatively little attachment to the labour market for a number of years. There is a considerable literature that argues that the gains and losses of lower income persons should be valued more highly than the gains and losses of higher income persons (see Annex 5 of HM Treasury *Green Book* 2003 or Chapter 18 of Boardman *et al.*, 2006 and the references therein). One reason for this is that the value individuals put on each additional pound they receive (i.e., their marginal utility of income) is likely to be higher for low income people than higher income people.[51]

This issue is relevant for programmes that make low income people worse off and higher income people better off. As seen in Table 6.1, NDDP produces sizeable positive net benefits for the Government and, hence, presumably makes taxpayers better off. The findings for NDDP registrants is much less certain once increases in work-related costs are taken into consideration, but they were probably also better off as a result of NDDP, although likely only marginally so. However, purely for the sake of illustration, let us assume that they were worse off by £500. Let us further assume that the net benefit amounts of £2,815 for continuing claimants and £1,016 for new claimants, the larger of the values that are reported in Table 6.1 for the Government, are correct estimates of the return from NDDP to taxpayers. Given these assumptions, the losses of registrants would have to be valued by society by almost six times as much as the gains of the Government (£2,815/£500) for net social benefits for continuing claimants to become negative and by over twice as much (£1,016/£500) for the net social benefits for new claimants to become negative. Although little is known about the value that society actually places on a pound received by a low income person relative to the value it places on a pound received by a higher income person, a two-to-one difference, let alone a six-to-one difference, appears rather large[52], as does the assumed loss of £500 by those registering for NDDP. Moreover,

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[50] For example, before taking account of housing costs, 16 per cent of the general population lived in households with incomes that were below 60 per cent of the median income in 2004-05, while 22 per cent of the population with one or more disabled adults lived in such households (Department for Work and Pensions HBAI Team 2006). After taking account of housing costs, the figures were 20 per cent and 25 per cent, respectively.

[51] For a discussion of additional reasons for treating high and low income persons differently in cost-benefit analysis, see Chapter 18 of Boardman *et al.*, (2006).

[52] HM Treasury *Green Book* 2003, Annex 5, p. 4, has a table, which it is stresses is 'merely illustrative', that implies a pound received by a household in the bottom income quintile is worth about twice as much as a pound received by a household in the middle income quintile and further implies that a pound received by a household in the second income quintile is worth about twice as much as a pound received by a typical household in the fourth income quintile. The footnote prior to the previous one suggests that the incomes of households with and without disabled persons are unlikely to differ by as much as two quintiles.

as discussed next, there are benefits to taxpayers from NDDP (the numerators of the ratios shown above) that have not yet been considered. Thus, it seems reasonable to conclude that NDDP's net social benefits probably remain positive even after taking account of the possibility that the gains and losses of lower income people should be more highly valued than those of higher income people.

There are two potential benefits to taxpayers from NDDP that have so-far been ignored: First, as shown in Tables 5.1 and 5.3, NDDP substantially reduced the receipt of Incapacity Benefit (IB), Income Support (IS), and Severe Disablement Allowance (SDA) by programme registrants and increased their employment. If taxpayers positively value the fact that NDDP helps incapacity recipients leaving the IB rolls and going to work in and of itself – that is, beyond any tax savings they may receive – then this is a programme benefit, albeit one that is very difficult to measure.

Second, and perhaps more importantly, if the net benefits to the Government that are reported in Table 6.1 result in correspondingly lower taxes, economic distortions that are caused by taxes would be reduced. For example, taxes on earnings reduce incentives to work and taxes on investment reduce incentives to invest. These distortions (usually called 'deadweight losses' or 'marginal excess tax burden' by economists) result in substantial losses in economic efficiency. For example, after reviewing a number of US studies, Boardman *et al.* (2006, pp. 428-429) conclude that the loss to the economy from each additional dollar of taxes that are collected in the US is on the order of 40 cents or 40 per cent. Less evidence is available for the UK, but Department for Work and Pensions (DWP) economists have concluded that the efficiency loss from an additional pound of taxes in the UK is around 25 pence or 25 per cent (Department for Work and Pensions, 2006). If we apply this 25 per cent figure to the estimates of Government benefits and costs in Table 6.1, the resulting calculations imply a benefit to taxpayers of £463 to £527 for each continuing claimant who registers in NDDP and £145 to £209 for each new claimant who registers.[53] Alternatively, the 40 per cent estimate for the US would imply a benefit to taxpayers of £741 to £843 and £232 to £334, respectively, for each continuing and new claimant who registers in NDDP.

Potentially, NDDP could impose costs on disabled persons who do not register for the programme, as well on non-disabled low-wage workers. For example, if NDDP registrants search harder for jobs or work more weeks or hours than they otherwise would, the resulting increase in labour supply will tend to reduce the equilibrium wage in the labour markets in which they find jobs. Thus, workers who are employed in the same labour markets could receive lower wages than they otherwise would.

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[53] In making these computations, we multiply .25 by the net benefit estimates in Table 6.1 less the estimates of the increases in tax payments made by registrants and the increases in National Insurance contributions made by registrants and their employers. Increases in tax payments by registrants and their employers simply permit reductions in tax payments by non-registrants and their employers. On net, therefore, there should be little or no effect on economic efficiency.

However, this effect is unlikely to be very large in practice, because the number of NDDP registrants who find jobs as a result of the programme is fairly small relative to size of the labour markets in which they compete. Moreover, the minimum wage should constrain downward wage pressure in low-wage labour markets. A potentially more important cost that might be imposed on workers who do not register for NDDP would result if registrants find jobs as a result of programme that would otherwise have been held by non-registrants. Not much is known about the magnitude of these so-called substitution effects, although one recent study suggests that they could be small (Blundell *et al.*, 2002) for low wage workers in the UK. They are especially likely to be small if labour markets are tight and, as a consequence, alternative job opportunities are available to non-registrants. If labour markets are slack, however, the size of substitution effects could be substantial and NDDP's net social benefits would be overstated. Although the national unemployment rate was relatively low during the years covered by the NDDP cost-benefit analysis (2001-2003), some Job Brokers operated in pockets of comparatively high unemployment. Thus, we suspect that substitution effects reduced NDDP's social net benefits, but not by large amounts.

To summarise, there is some uncertainty concerning the social net benefits of NDDP. On the one hand, they could be significantly smaller than shown in Table 8.1 if programme substitution effects are large, if the estimated impacts of NDDP are upward biased because of shortcoming in the administrative tax data used in computing them, if work-related expenses are high, or if registrants highly value the time they must give up to go to work. On the other hand, they could be substantially larger than shown in the table if registrants who find jobs as a result of NDDP are substantially undercounted in the administrative tax data; if NDDP had large impacts on the hours worked by employed registrants, as well as on the level of employment of registrants; if increases in the employment of the disabled are highly valued by taxpayers; or because, by allowing taxes to be lower than otherwise, NDDP reduces economic distortions caused by taxes. Taking all these considerations into account, as well as the less important ones discussed earlier, it seems highly probable that the net social benefits of NDDP are positive, although the precise values for continuing and new claimants could be either somewhat larger or somewhat smaller than those reported in Table 8.1.

Table 8.2 reports separate net social benefit estimates for continuing and new claimants who registered with large and small Job Brokers. Net social benefits are positive for all four groups. Moreover, they do not differ very much by Job Broker size. The key factor that that caused net benefits to be larger at larger Job Brokers from the Government perspective and smaller from the perspective of registrants - NDDP's impacts on IS, IB and SDA payments - has no influence on net social benefits.

Table 8.2 Benefits and costs for large and small Job Brokers: the societal perspective

	Continuing claimants		New claimants	
	Large Job Brokers	**Small Job Brokers**	**Large Job Brokers**	**Small Job Brokers**
Benefits				
Increases in earnings net of direct taxes	£3,625	£3,092	£1,288	£1,491
Increases in direct tax revenues and National Insurance contributions	£420	£358	£149	£173
Increases in employers' National Insurance contributions	£193	£165	£69	£80
Reductions in costs of administering IB/IS/SDA	£28	£14	£17	£8
Costs				
Increases in costs of administering JSA	£2	£1	£1	£1
NDDP operating costs (alternative estimates)				
Lower-bound estimates	£683	£1,084	£683	£1,084
Upper-bound estimates	£1,038	£1,084	£1,038	£1,084
Net benefits (benefits – costs)				
Based on the lower-bound costs	£3,581	£2,544	£839	£667
Based on the upper-bound costs	£3,226	£2,544	£484	£667

Note: All values are in 2005 prices.

Part IV – Conclusions

9 Conclusions

Part II of this report presents findings from an analysis of the costs incurred by 19 Job Brokers in providing services to clients registered in the New Deal for Disabled (NDDP) programme. The cost data were obtained from a postal survey of Job Brokers and through face-to-face interviews with Job Brokers at their premises. Additional cost data were provided by the Job Brokers who were interviewed during follow-up telephone calls and by correspondence. Selected variables that were obtained from the postal survey of Job Brokers and from a survey of NDDP registrants (cohort 1, wave 1) were also used in the analysis presented in this report.

The sample size is small. Twenty Job Brokers were interviewed, but one was excluded from the analysis because of inconsistent and incomplete data (see Section 1.6.1 of Part II). However, the total number of Job Brokers operating between April 2002 and March 2003 was 61. Hence, the 19 Job Brokers in the sample represent a little under a third of all those delivering the programme over that period. As the number of client registrations claimed by the Job Brokers in the sample also accounted for just under one-third of all those recorded (see Section 2.2), the sample is representative in terms of Job Broker size.

Part III of the report provides the results of a cost-benefit analysis of NDDP. This analysis is based on both the NDDP cost analysis presented in Part II of the report and the NDDP impact analysis conducted by Orr, Bell and Lam (2007). Because Orr, Bell and Lam's impact estimates are limited to the first 36 months after registration in NDDP, the cost-benefit analysis also relies heavily on predictions of impacts that occur beyond this point. Findings from the cost-benefit analysis are presented separately for continuing claimants of incapacity benefits and new (or returning) claimants. Separate cost-benefit results are also reported for large and small Job Brokers.

9.1 Job Broker costs and profitability

The cost to Job Brokers of serving a typical registrant is probably between £600 and £900. However, there is great variation among the Job Brokers in the costs that they bear. Much of this variation seems attributable to differences in Job Broker size; larger Job Brokers with more registrants incur substantially lower costs for each registrant they serve.

In addition to the cost incurred by Job Brokers in serving registrants, Jobcentre Plus incurs costs of over £100 per registrant in administering NDDP. Thus, the total cost of NDDP is £700 to £1,100 per registrant.

Thirteen of the 19 Job Brokers in the sample suffered net losses. The average Job Broker incurred a loss of over £300 per registrant, although there is great variation among Job Brokers in terms of profits and losses. Job Brokers with relatively few registrants tend to lose money, whilst larger Job Brokers tend to be profitable (see Section 3.3.2). Indeed, it may not be possible for smaller Job Brokers to continue to participate in NDDP unless their outcome payments are considerably increased. Yet, over half of all the NDDP registrants who are registered with the Job Brokers in the sample appear to be currently served by Job Brokers who are making a profit.

Because the costs of smaller Job Brokers tend to be relatively high and their placement and sustainment ratios tend to be relatively low (see Section 3.4.4), Job Broker size is also strongly inversely related to costs per job entry and costs per sustainment (see Section 4.5).

9.2 Other factors

There is less certainty about the effects of factors other than size on the costs and profitability of Job Brokers. However, there is some evidence that the cost per registrant increases as a Job Broker's sustainment rate increases (see Section 3.4.2). The analysis also suggests that costs incurred by public and private sector Job Brokers are £300 to £400 higher per registrant than costs incurred by other Job Brokers (see Section 3.4.2), whilst the profits of Job Brokers that are in the public or private sectors appear to be around £500 lower per registrant than those of other Job Brokers (see Section 3.4.3). Neither the types of services that a Job Broker provides nor whether it had been previously involved in earlier initiatives with a similar client group seems to influence either its costs per registrant (see Section 3.4.2) or its profitability (see Section 3.4.3).

9.3 Cost-effectiveness of NDDP

Including expenses borne by Jobcentre Plus in administering NDDP, as well as those borne by individual Job Brokers, the cost per placement was approximately £2,000 to £3,000 and the cost per sustainment was £4,000 to £5,000 (see Section 4.5). The earnings of those who sustain employment are quite likely to exceed the cost that a

relatively efficient Job Broker incurs in achieving a sustainment. However, this way of looking at the cost-effectiveness of Job Brokers will be quite misleading if many NDDP registrants who find work would have gained employment without the help of the NDDP programmes. Costs that result from the programme can only be offset by increases in earnings or reductions in incapacity benefit payments that also result from the programme – that is, by NDDP's impacts on earnings and incapacity benefit payments. Hence, a cost-benefit analysis was conducted to determine whether the benefits resulting from NDDP exceed the programme's costs. Finding from this analysis appear in Part III of this report and are summarised next.

9.4 Cost-benefits of NDDP

9.4.1 Key findings

The cost-benefit analysis was conducted from three different perspectives: that of the Government, that of programme registrants, and that of society as a whole.

Taking account of both reductions in incapacity benefit payments received by NDDP registrants and the cost of administering these benefits, NDDP was found to reduce the Government's budgetary requirements by around £2,500 for a typical continuing claimant who registered and by about £800 to £1,100 for an average new claimant who registered. In terms of the costs of NDDP, this is a considerable saving. For each pound expended on NDDP, the Government saved between £3.41 and £4.50 for continuing claimants and between £1.71 and £2.26 for new claimants in benefit payments and administrative expenditures (see Chapter 3). The conclusion that NDDP is cost-beneficial for both groups of customers from the Government's perspective appears to be highly robust to the assumptions that underlie it. Separate cost-benefit analyses of large and small Job Brokers (i.e. those with more than and fewer than 900 registrants) found that the benefits received by the Government exceeded the Government's costs for both groups of Job Brokers. However, net benefits from the Government's perspective, appeared to be far greater for the larger Job Brokers than for the smaller ones.

The findings for programme registrants are much less definitive, particularly in the case of continuing claimants. It appears likely that a typical NDDP registrant was probably better off as a result of the programme, but this increase in welfare was probably quite modest (see Chapter 7). Because their incapacity benefits fell by less, however, it is evident that claimants who registered with small Job Brokers were better off than claimants who registered with large Job Brokers. The most important sources of uncertainty about net benefits from the perspective of NDDP registrants result from limitations in the data used to estimates programme impacts on employment and incapacity benefit payments and from the absence of information about how much registrants valued the time they gave up to work and whether, in addition to increasing the proportion of NDDP registrants who were employed, the programme also increased the hours of work of employed registrants.

The net benefits of NDDP to society as a whole are very likely positive. However, they seem to be considerably larger for continuing claimants than for new claimants. For example, the reported estimates are £2,915 to £3,163 for continuing claimants and £613 to £861 for new claimants. For each pound the Government expended on NDDP, the resulting social benefits were estimated to be £4 to £5 for continuing claimants and around £2 for new claimants (see Chapter 8).

Net social benefits do not seem to differ greatly by Job Broker size. This is because programme impacts on employment and, hence, earnings also do not differ greatly by Job Broker size. However, during the period covered by our analysis, large Job Brokers received considerably more incentive payments per registrant than small Job Brokers, because they placed a greater percentage of their registrants in jobs and a larger percentage of their registrants sustained their jobs for at least six months (see Section 3.4.4). This perhaps suggests that some rethinking should be done about the structure of NDDP incentive payments. In addition, it is not evident from our results that increasing the size of incentive payments pays off in increasing placement or sustainment rates (see Section 3.4.4).

Although they are almost surely positive, the actual net benefits received by society could be either somewhat smaller or larger than the amounts just mentioned. The most important sources of this uncertainty are the lack of information about the following factors: the size of possible programme substitution effects, the value registrants put on the time they give up in order to go to work, the extent to which NDDP increases the hours of working registrants and the degree to which NDDP significantly reduces economic distortions caused by taxes by allowing taxes to be lower than otherwise. An additional important cause of uncertainty is reporting errors in the administrative tax data used to estimate NDDP's impact on employment.

9.4.2 Current relevance of findings

The cost-benefit analysis is based on cost data and impact estimates that pertain to a period between 2001 and 2003, when NDDP was relatively new. Since then, as experience has been gained in operating the programme, it has changed in important ways. Thus, care should be taken in applying the findings reported above to the current version of the programme. However, it is possible to conjecture a bit about how certain specific programmatic changes might alter the cost-benefit findings if the analysis were to be repeated with recent data.

The findings described above for new and returning claimants are probably increasingly more relevant than those for continuing claimants. Over time, the pool of individuals who were receiving incapacity benefits when NDDP was extended nationally in 2001 **and** who will ever voluntarily register for the programme has steadily diminished, leaving new and returning claimants as an increasingly important source of registrants. However, some persons who became incapacity claimants since 2001 may not register until their health permits and that may take several years. Thus, the impact of NDDP on them may be more similar to NDDP's effects on continuing claimants than its impact on new claimants.

In general, NDDP should have become more cost-beneficial over time as both DWP and Job Brokers learned about how to operate the programme more effectively and as ineffectual Job Brokers were weeded out. In fact, Orr, Bell and Lam (2007) provide some evidence that programme impacts on reducing the amount of incapacity benefits received increased substantially after NDDP had been operating for a few years. In addition, they also provide evidence of a moderate increase in NDDP's impact on the employment rate of continuing claimants (but not new claimants). However, there has been at least one change to the programme that **might** operate in the other direction. In October 2003, the definition of sustainable employment was reduced from six months to three months, reducing the incentive of Job Brokers to keep placed customers employed after three months and, hence, possibly reducing the impact of NDDP on employment. Nonetheless, Job Brokers were required to continue to provide support for a minimum of six months after customers began working.

There have been other changes to NDDP that may have changed the composition of the customer group being served and this, in turn, may have influenced how cost-beneficial the programme currently is. For example, the incentive payment for registering incapacity benefit claimants has been increased from £104 to £300. This could conceivably result in increasing the proportion of registrants who are relatively difficult to place in jobs. In addition, as part of the Pathways to Work Pilots[54], Jobcentre Plus personal advisers recommend that incapacity benefit claimants who they consider job-ready, register with Job Brokers. This could also result in increasing the registration of more difficult to place claimants. Although these changes might cause an increasing share of the Job Broker caseload to be made up of relatively difficult to place claimants, programme **impacts** for such claimants (i.e. the difference between their receipt of incapacity benefits and their employment level with NDDP and without NDDP) could actually be larger than those for more readily placed claimants. For example, Orr, Bell and Lam (2007) found that NDDP's impacts on incapacity benefit payment amounts were larger for older claimants than younger claimants, for claimants in relatively more rural areas and for claimants who are further from the labour market (as measured by their probability of finding work in the next two years without NDDP). Their findings for programme impacts on the employment of continuing claimants were similar, while those for impacts on the employment of new claimants were somewhat erratic but tended to be in the opposite direction. Thus, it is possible that these compositional changes could cause NDDP to become somewhat more cost-beneficial from the Government perspective for both new and for continuing claimants (the incapacity benefit payments these registrants receive might fall, on average) and from the societal perspective for continuing claimants (the average earnings of such registrants might rise) but not new claimants. Programme effects on the incomes of the average new claimant would decline if NDDP's impact

[54] The Pathways to Work Pilots requires incapacity benefit claimants to take part in Work Focused Interviews at Jobcentre Plus with personal advisors. This pilot programme was initially tested in seven Jobcentre Plus districts starting in 2003 and 2004 but is gradually being extended to cover one-third of the UK. In the remainder of the country, Pathways to Work will be delivered by private and voluntary sector providers from October 2007.

on incapacity benefits is larger for harder to place new claimants, but its impact on the employment of such claimants is smaller. The implication for the income of a typical continuing claimant is less apparent. If NDDP's impacts on incapacity benefits and employment are both relatively larger for harder to place continuing claimants, this would tend to affect income in opposing directions.

Appendix A
Survey of Job Brokers

This survey is being conducted by the Centre for Research in Social Policy, on behalf of the Department for Work and Pensions. The survey forms part of the evaluation of the New Deal for Disabled People national extension, and the research aims to help improve the services that Job Brokers provide. The information given will be held in confidence and used for research purposes only. It will not be possible to identify individuals or individual organisations from the information produced as a result of this research.

If you have any questions, concerns or difficulties with this questionnaire, please contact Abigail Davis at the Centre for Research in Social Policy
Tel: 01509 223369
Fax: 01509 213409
Email: a.a.i.davis@lboro.ac.uk

Thank you for your help.

Module A About your organisation

Firstly, we would like to ask you some questions about the organisation you work in.

A1
What is the name of your organisation?

_____

A2
Which category best describes your organisation:
(Tick one only)

Public sector	☐
Private sector	☐
Voluntary sector	☐
Mixture	☐
Other (please describe below)	☐

_____

A2x
Is your organisation registered as a charity?

Yes	☐
No	☐

A3
What is the extent of the area you deliver NDDP services to:
(Please tick the largest area that applies)

Local	☐
Regional	☐
National	☐

A3a
Please enter the number of Local Authorities you cover

______

About your Partner organisations
In order to understand the service you provide for NDDP clients, we are interested in finding out about organisations, agencies and other professionals you involve in your delivery of this service. You may refer clients to them for services or experience, or they may supply advice or support to your organisation.

A4
Please complete the following table:

Name and address of partner organisation	Type of organisation	Role of partner organisation	Main services delivered
	Public ☐ Private ☐ Voluntary ☐ Mix ☐	Strategic ☐ Advisory ☐ Delivery ☐ Other ☐	
	Public ☐ Private ☐ Voluntary ☐ Mix ☐	Strategic ☐ Advisory ☐ Delivery ☐ Other ☐	
	Public ☐ Private ☐ Voluntary ☐ Mix ☐	Strategic ☐ Advisory ☐ Delivery ☐ Other ☐	
	Public ☐ Private ☐ Voluntary ☐ Mix ☐	Strategic ☐ Advisory ☐ Delivery ☐ Other ☐	
	Public ☐ Private ☐ Voluntary ☐ Mix ☐	Strategic ☐ Advisory ☐ Delivery ☐ Other ☐	

NB If necessary, please attach an additional sheet.

Module B About the area served
We would now like to ask you about the job market in the area(s) you deliver NDDP services to.

B1
Which statements do you think best describe the labour market conditions for NDDP programme participants in the area(s) you serve:

(Tick all that apply)	**Strongly Agree**	**Agree**	**Disagree**	**Strongly Disagree**
There are few jobs for people on NDDP who would like to work	☐	☐	☐	☐
There are jobs with a limited number of employers for people on NDDP who would like to work	☐	☐	☐	☐
There are plenty of jobs for people on NDDP who would like to work	☐	☐	☐	☐
There are jobs with a wide range of employers for people on NDDP who would like to work	☐	☐	☐	☐

Module C About your clients
In order to understand the service you provide for NDDP clients properly, we now need to ask you for some information about the people you help with this scheme. Firstly, how they find out about you, and why they contact you.

C1
How do people find out about the NDDP service that you provide?
(Tick all that apply)

NDDP letter	☐
Permitted Work Rules mailing/letter	☐
NDDP leaflet	☐
Advertising	☐
Internet/email	☐
Personal contact	☐
Jobcentre plus staff (inc. interview with Personal Adviser/DEA)	☐
Friend or relative	☐
Employer	☐
Training provider	☐
Advice or Welfare rights worker	☐
Voluntary/Disability organisation	☐
Doctor or other health professional	☐
Saw the office/called in after passing the office	☐
Social worker/social services worker	☐
Day Centre	☐
Other (please specify below)	☐

_____

C2
Why do your NDDP clients contact you?
(Tick all that apply)

	All	Majority	Minority	None
for help with moving back to work	☐	☐	☐	☐
to find out whether they are able to get back to work	☐	☐	☐	☐
to increase their working hours	☐	☐	☐	☐
to find a job that is tailored to their needs	☐	☐	☐	☐
for help with finding training	☐	☐	☐	☐
for help with getting or increasing their benefits	☐	☐	☐	☐
they think it is compulsory	☐	☐	☐	☐
they think they would lose their benefits if they did not	☐	☐	☐	☐
to get more information about their benefits position	☐	☐	☐	☐
it seemed a good idea	☐	☐	☐	☐
it was an opportunity to talk about their situation/ prospects with someone else	☐	☐	☐	☐
it was arranged for them by someone else	☐	☐	☐	☐
other reasons (please specify below)	☐	☐	☐	☐

_____

_____

It is helpful for us to understand the steps new clients go through when they first approach you about enrolling on NDDP. The next questions are about your procedures.

C3
When a new NDDP client comes to you, do you:
(Tick one)

- Arrange a pre-registration meeting to assess the suitability of NDDP for the client ☐
- Assess the suitability of NDDP for the client and register them at the same time ☐
- It depends (please explain on what it depends below) ☐

_____

_____

C3x
If it depends, how do you decide what to do?

_____

C4
Where do you hold your pre-registration/registration meetings?
(Tick all that apply)

At our head office	☐
At whichever branch is nearest/most convenient for them	☐
At a neutral venue (e.g., Health Centre/ Community Centre)	☐
At the client's home	☐
Somewhere else (please specify below)	☐

_____

C5
On average, how many meetings would you expect to have with a client from first contact to registration?
(Tick one)

One	☐
Two	☐
Three	☐
Four	☐
More than four	☐

C6
How long would you expect these meetings to take, in total?
(Tick one)

One hour	☐
Two hours	☐
Three hours	☐
Four hours	☐
More than four hours	☐

Module D More about your clients

We would now like to ask you about the NDDP clients you see, to find out more about their needs, attitudes and expectations.

D1

What proportion of your NDDP clients fit the descriptions below?

(Percentage)	0	1-25	26-50	51-75	76-100
Nearly job ready, minimum assistance required	☐	☐	☐	☐	☐
Expected to be job ready within the next 6 months	☐	☐	☐	☐	☐
Expected to be job ready in more than 6 months but within a year from now	☐	☐	☐	☐	☐
Expected to be job ready in more than one year from now	☐	☐	☐	☐	☐
It depends	☐	☐	☐	☐	☐

D2

Your NDDP clients are likely to have different attitudes towards work. To what extent do the following statements apply to your NDDP clients?
(Tick one for each statement)

	Strongly Agree	Agree	Disagree	Strongly Disagree
For most, having almost any job is better than being unemployed	☐	☐	☐	☐
Generally, they see it as their responsibility to find a job	☐	☐	☐	☐
Generally, they are prepared to take any job they can do, not just a job in their usual occupation	☐	☐	☐	☐
They should not be expected to take a new job earning less than they were earning in their last job	☐	☐	☐	☐
If they had enough money to live comfortably for the rest of their lives, most would still want to work	☐	☐	☐	☐
Having a job is very important to them	☐	☐	☐	☐
Once they have a job they usually feel it is important to hang on to it, even if they don't really like it	☐	☐	☐	☐

Module E About the employers you have contact with through NDDP

We would now like to ask you about the employers you have contact with when helping NDDP clients.

E1

Which statement best describes your experience of (local) employers' attitudes to employing someone who is on NDDP?

(Tick one only)	None	Minority	Majority	All
They are positive about it and already employ people who have registered for NDDP	☐	☐	☐	☐
They are positive about it, but do not have any employees who have registered for NDDP	☐	☐	☐	☐
They are unsure about employing people on the NDDP programme, but would be prepared to try it	☐	☐	☐	☐
They are unsure about employing people on the NDDP programme, and would be reluctant to try it	☐	☐	☐	☐
They do not recruit people who have registered for NDDP	☐	☐	☐	☐

E2

What types of employment opportunities are available from (local) employers?

(Tick all that apply)

Agriculture, hunting and forestry	☐
Fishing	☐
Mining and quarrying	☐
Manufacturing	☐
Electricity, gas and water supply	☐
Construction	☐
Wholesale and retail trade; repair of motor vehicles, motorcycles and household goods	☐
Hotels and restaurants	☐
Transport, storage and communication	☐
Financial intermediation	☐
Real estate, renting and business activities	☐
Public administration and defence; compulsory social security	☐
Education	☐
Health and social work	☐
Other community, social and personal service activities	☐

E2a

What level of jobs are available from these employers?

(Tick all that apply)

	All	Majority	Minority	None
Professional	☐	☐	☐	☐
Intermediate	☐	☐	☐	☐
Skilled non-manual	☐	☐	☐	☐
Skilled manual	☐	☐	☐	☐
Semi-skilled	☐	☐	☐	☐
Unskilled	☐	☐	☐	☐

E3
Approximately how many employers do you have contact with in connection with NDDP?

(Tick one only)

1-25	☐
26-50	☐
51-100	☐
101-200	☐
201-500	☐
More than 500	☐

Module F About the people who work for your organisation

We would now like to find out more about the people delivering NDDP who work for your organisation.

F1

What proportion of the staff who deal directly with NDDP clients have:

(Percentage)	**0**	**1-25**	**26-50**	**51-75**	**76-100**
Degree or Higher degree (MA, MSc, PhD)	☐	☐	☐	☐	☐
6 or more months experience working on other labour market programmes	☐	☐	☐	☐	☐
6 or more months experience working with the client group	☐	☐	☐	☐	☐

F2

On average, how many cases would each member of front line staff be allocated?

_____

F3

How are clients allocated to staff?

(Tick one only)

- Clients are allocated by rotation ☐
- Clients are allocated to whoever is available ☐
- Clients are allocated to whoever has fewest clients at that point ☐
- Clients are allocated depending on the support they require ☐
- Clients are allocated depending on the nature of their illness/disability ☐
- Clients are allocated depending on their geographical location ☐
- Clients are allocated alphabetically by surname ☐
- Other (please specify below) ☐

_____

_____

F4

How is work on each NDDP case allocated among staff?

(Tick one only)

- All staff deliver all of the available services ☐
- Staff specialise in different aspects of the service (e.g., assessment, benefit advice, CV writing, training) ☐
- Staff specialise in dealing with people with different types of illness/disability ☐
- Other (please specify below) ☐

_____

_____

F5
What access do clients have to staff?

(Tick all that apply)

- Staff are available whenever clients drop in ☐
- Staff are available by appointment only ☐
- Staff can be contacted during office hours only ☐
- Staff can be contacted out of office hours (e.g., via pager) ☐
- Clients can leave a message with an answering service/ answering machine out of office hours ☐
- Clients can contact a helpline manned by staff during office hours ☐
- Clients can contact a helpline manned by staff outside office hours ☐
- Staff will visit clients at work/home during office hours ☐
- Staff will visit clients at work/home outside office hours ☐
- Other (please specify below) ☐

_____

_____

Module G About the services you provide for NDDP clients

We would now like to ask you some questions about the services your organisation provides for NDDP clients, and services that are provided for your NDDP clients by other organisations, agencies or professionals.

G1

Which statement best describes the way your organisation approaches its work with NDDP clients?

(Tick all that apply)	**Disagree Strongly**	**Disagree**	**Agree**	**Agree Strongly**
Our main aim is to find jobs for our clients	☐	☐	☐	☐
Our main aim is to equip clients to find work for themselves	☐	☐	☐	☐
Our main aim is to help people gain skills and confidence, which may help them to find employment	☐	☐	☐	☐
Our main aim is to work with clients to help them to achieve their goals, whether these are work-related or not	☐	☐	☐	☐

G2

Which services do you provide in-house for NDDP clients?

(Tick all that apply)

- CV preparation ☐
- Basic skills training (e.g., literacy, numeracy) ☐
- Soft skills training (e.g., confidence building, communication skills) ☐
- Key skills training (e.g., computer skills, telephone skills) ☐
- Job searching ☐
- Job matching ☐
- Benefits advice ☐
- Careers advice ☐
- Work experience ☐
- Other help or advice ☐

G3
For what reasons do you refer NDDP clients to other organisations/agencies/professionals

(Tick all that apply)

Clients require more intensive support than we can offer	☐
Clients are insufficiently job ready for us to help them	☐
To acquire further educational qualifications	☐
Basic skills training (e.g., literacy and numeracy)	☐
Soft skills training (e.g., confidence building, communication skills)	☐
Key skills training (e.g., computer skills, telephone skills)	☐
Job searching	☐
Job matching	☐
Benefits advice	☐
Careers advice	☐
To gain work experience/ a work taster	☐
To gain work experience within a voluntary organisation	☐
To get specialist help with their illness/disability	☐
To get specialist help with other problems (e.g., alcohol/drug addiction)	☐
Other help or advice	☐

G4
How is NDDP clients' progress monitored?

(Tick all that apply)

Regular review meetings with the client (weekly/fortnightly/monthly)	☐
Regular review meetings with the client and the employer	☐
Regular telephone contact with the client	☐
Regular telephone contact with the client and the employer	☐
Questionnaire sent to client	☐
Questionnaire sent to client and employer	☐
There is no formal monitoring system in place	☐
Other (please specify below)	☐

_____

G5
What types of support do you provide for your NDDP clients as they go into/once they are in employment?

(Tick all that apply)

Appointing a job coach/mentor/buddy within the workplace	☐
Accompanying client to work for initial period	☐
Assisting client with travel arrangements/route planning	☐
Face-to-face intervention with employer on client's behalf	☐
Assistance with organisation of personal/domestic commitments	☐
Access to support network (e.g., newsletters, self-help groups, open sessions)	☐
Other (please specify below)	☐

_____

G6
How do you monitor employers' satisfaction with the NDDP services you provide?

(Tick all that apply)
- Questionnaire completed by employer ☐
- Employer asked for feedback during follow-up contacts ☐
- Employers invited to communicate criticisms/comments/suggestions in literature distributed to them ☐
- There is no formal monitoring system in place ☐
- Other (please specify below) ☐

_____

G7
How do you monitor your clients' satisfaction with the NDDP services you provide?

(Tick all that apply)
- Questionnaire completed by client ☐
- Client asked for feedback during follow-up contacts ☐
- Clients invited to communicate criticisms/comments/suggestions in literature distributed as part of the registration process ☐
- There is no formal monitoring system in place ☐
- Other (please specify below) ☐

_____

_____

G8
Some people who contact you will not be eligible for NDDP or the services provided may not be appropriate for them, and so they are not registered for the programme. What services do you provide for these people?

(Tick all that apply)
- None ☐
- None, people are referred to other providers ☐
- CV preparation ☐
- Basic skills training (e.g., literacy, numeracy) ☐
- Soft skills training (e.g., confidence building, communication skills) ☐
- Key skills training (e.g., computer skills, telephone skills) ☐
- Job searching ☐
- Job matching ☐
- Benefits advice ☐
- Careers advice ☐
- Other help or advice (please specify below) ☐

_____

_____

Module H About the costs of delivering NDDP

As part of the evaluation of New Deal for Disabled People it is important for us to look at the costs of delivering the programme, and the help that the programme provides for participants. For this reason, we would like to ask for your co-operation in supplying some basic financial information relating to how much it costs your organisation to deliver the services it provides for NDDP clients. **All information given will be held in confidence and used for research purposes only. It will not be possible to identify individuals or individual organisations from the information produced as a result of this research.**

At this stage we are not collecting any cost information. However, if asked, would you be able to provide information on:

H1	Number of staff employed, by job title	Yes	☐	No	☐
H2	Number of staff, by job title, who have direct contact with NDDP clients	Yes	☐	No	☐
H3	What other DWP programmes your organisation Delivers	Yes	☐	No	☐
H4	How staff time use is monitored	Yes	☐	No	☐
H5	Percentage of time spent on NDDP by staff, by job title	Yes	☐	No	☐
H6	Staff turnover level	Yes	☐	No	☐
H7	Staff training and recruitment costs	Yes	☐	No	☐
H8	Staffing costs (i.e., salary costs)	Yes	☐	No	☐
H9	In-house service costs	Yes	☐	No	☐
H10	Who you pay to provide external services	Yes	☐	No	☐
H11	Monitoring of external service provision (quality, attendance, etc.)	Yes	☐	No	☐
H12	External service provision costs	Yes	☐	No	☐

Module I Other costs to your organisation

We also need to take into account the money your organisation spends on general running costs and other expenditure necessary to enable your organisation to deliver the NDDP programme. **All information given will be held in confidence and used for research purposes only. It will not be possible to identify individuals or individual organisations from the information produced as a result of this research.**

I1

At this stage we are not collecting any cost information. However, if asked, would you be able to provide information on:

Cost of overheads

(e.g., lighting, heating, rent, cleaning and maintenance of your premises, salaries, computer equipment, telephone bills, furniture, marketing, administration, other costs)

Yes ☐ No ☐

Finally, we would like to ask you about how you publicise your service.

I2

What marketing of your NDDP services do you do/have you done, and do you think they have been cost effective?

(Tick all that apply)	**Method used**	**Cost effective**	**Not cost effective**	**Don't know**
Newspaper advertising	☐	☐	☐	☐
Email/internet advertising	☐	☐	☐	☐
Radio advertising	☐	☐	☐	☐
Television advertising	☐	☐	☐	☐
Careers/Job Fairs	☐	☐	☐	☐
Mobile bus/van	☐	☐	☐	☐
Promotional literature at Jobcentre(s)	☐	☐	☐	☐
Promotional literature at doctors' surgeries	☐	☐	☐	☐
Promotional literature at Health Centres	☐	☐	☐	☐
Promotional literature at Community Centres	☐	☐	☐	☐
Promotional literature at Voluntary/ Disability organisations	☐	☐	☐	☐
Other (please specify below)	☐	☐	☐	☐

_____

Thank you very much for your help.

Please return your completed questionnaire in the FREEPOST envelope provided (no stamp required)

Appendix B
Letter to Job Broker and pro-formas

Name
Address 1
Address 2
Address 3
Address 4
Postcode

Direct Line: +44 (0)1509 223369
Fax: +44 (0)1509 213409
E-mail: a.a.i.davis@lboro.ac.uk
WWW url: http://www.crsp.ac.uk

30 April 2003

Dear

Evaluation of New Deal for Disabled People – Cost Benefit Analysis

Further to our recent telephone conversation, I should like to thank you for agreeing to participate in our research, and to confirm that Professor David Greenberg and I will be visiting you on (Day) (Date) at (Time).

The purpose of our visit will be to gather information about the cost of staff time spent on NDDP, as well as some additional information about the overheads you incur, and any payments to other organizations that help you to deliver the programme. We anticipate spending about an hour and a half with you, but this will vary, depending on local circumstances. All the information you provide will remain strictly confidential and will only be seen by the research team. Individual Job Brokers will not be identified in any reporting of the analysis.

Attached is a pro forma that indicates the type and amount of information we are collecting. This will give you an idea of the questions we will be asking in the interview, and the format in which we will require the data. The forms will be completed by the research team, using the information we gather during our visit, but please feel free to complete as much of it in advance as you feel appropriate.

Thank you again for taking part in our research. If you require any further information, please do not hesitate to contact me at the number/email address above. I look forward to meeting you on (Date).

Yours sincerely

Abigail Davis

Research Assistant
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	Job title	Number of employees	Gross Salary (in £s)	Fringes (in £s)	Gross Salary (in £s)	% of work time devoted to NDDP activities	Cost (in £s) [(B)x((F)] [(C)+(D)]
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							

INSTRUCTIONS FOR TABLE ON IN-HOUSE COSTS

A. List each employee who works directly with NDDP clients by job title. If more than one employee with the same job title does the same work with clients, they can be listed on the same line. [Employees who are listed on the same line should perform similar sets of functions or duties with NDDP clients.] Alternatively, if it is more convenient, each employee can be listed on a separate line. [If each employee with the same job title is listed on a separate line, repeat the job title, but identify the employee as 'Employee A', Employee B', and so forth.] The NDDP-responsibilities of the employee or employees listed on each line should be briefly described on a separate sheet.

B. Indicate the number of full-time equivalent employees listed on each line. For example, 2 full-time employees and 3 half-time employees with the same job title would count as 3.5 full-time equivalent employees.

C. Indicate the gross salary of the employee or employees listed on each line. (If more than one employee is listed on a line, provide the average salary.) By 'gross salary,' we mean prior to deductions. However, if overtime pay is received more than half the time, then gross salary should include overtime pay.

D. Indicate the value of the fringe benefits (i.e. additional payroll costs not included in salary) received by the employee or employees listed on each line. This should include any employer payments for pensions and National Insurance. It should also include any employer bonus payments if not included in column (C). (If more than one employee is listed on a line, provide the average value.)

E. Indicate whether the salary and fringe benefit values on each line pertain to a year, a fortnight, a month, or a week. If data is entered in column (G) instead of columns (C), (D) and (F), column E should still be completed.

F. Indicate the approximate percentage of work time that the employee or employees listed on each line devotes to NDDP activities. (If more than one employee is listed on a line, provide the average value.) [Note: this is intended to take account of the possibility that some of the employees who work directly with NDDP clients do so only part of the time they are on the job and perform other, non-NDDP activities the remainder of their time.]

G. As indicated, the NDDP costs accrued by the employee or employees listed on each line is computed in column (G). The Job Broker does not need to make this calculation, as CRSP will use a spreadsheet to do it. However, if this value is available directly—for example, through an accounting system set-up to track NDDP costs—then the Job Broker can simply fill in column (G), rather than columns (C) (D) and (F). The information for column (E) should still be entered.

ADDITIONAL NEEDED INFORMATION ABOUT IN-HOUSE COSTS

1. The overhead rate. The "overhead rate" is defined as overhead costs divided by total costs. Overhead costs include various non-salary costs such as expenditures on telephones, computers, furniture, and rental payments for physical facilities. (It can alternatively be defined as total costs divided by non-overhead costs.) For purposes of the cost analysis, overhead costs should also include administrative costs - that is, the salary and fringe benefit costs of staff who do not directly work with programme clients, but either supervise or help those who do work directly with programme clients (e.g. secretaries and IT personnel). If these latter costs (i.e. administrative costs) are not included in the numerator used in computing the overhead rate, then they should be listed in the in-house cost table, along with the costs of employees who do work directly with NDDP clients. [An alternative approach, if needed, to obtaining the cost of overhead is to multiply total expenditures on each item (e.g. computers, rental space, telephone, supervisor's salaries, secretaries salaries) by the fraction of the Job Broker's total staff cost devoted to NDDP work.]

2. Payments for support services. Net payments made in a typical month to provide out-of-house support services for clients (e.g. training, transportation, child care, uniforms, etc.). [Emphasis is on net payments because some payments are loans, rather than grants. If annual amounts are available, then divide by 12 to obtain the 'typical' monthly amount. Determine whether this value is also accounted for in the table for outside organisations.]

3. Special purchases made specifically for NDDP. List each, briefly describe, and obtain the cost of each.

4. Work-related expenditures by clients. Collect whatever is available and document what the figures cover. [It is recognised that this item may not be available, but if some information is available, we would like to obtain it.]

5. Unit costs. Ideally, unit costs should include the full cost of providing one unit of each service that is provided in house—that is, salary, fringe benefits, and overhead. Thus, for example, unit costs should measure the full cost of providing one hour of counselling or one week of training. [It is recognised that unit cost estimates may not be available, but to the extent they are, we would like to obtain them.]

OTHER INFORMATION

1. Number of clients registered on NDDP.

2. Have we missed any other costs incurred in connection with NDDP?

Name	Type of organization [i.e. private, charitable or voluntary, or Government]	Number of clients referred in a typical month	Paid by Job Broker [Yes or No]	If paid, basis of payment (e.g. fixed fee, per referred client, etc)	If paid, amount paid **(in $s) during a typical month**
(A)	(B)	(C)	(D)	(E)	(F)

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